

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 223.—Vol. IX.]

LONDON: SATURDAY, NOVEMBER 30, 1839.

[PRICE (WITH A SUPPLEMENT) 6d.]

PUBLIC COMPANIES.

MEETINGS.

CONSOLIDATED COPPER MINES OF COBRE ASSOCIATION.—Notice is hereby given, that a SPECIAL GENERAL MEETING of proprietors of this Association will be held at the office of the Association, 26, Austin-friars, on Friday, the 20th day of December next, at Eleven o'clock precisely, for the purpose of electing a director in the room of Charles Pascoe Grenfell, Esq., resigned; and immediately after such election, another Special General Meeting will be held at the same place, for the purpose of electing a director in the room of George Minshaw Glascock, Esq., resigned. Every proprietor who may intend to be a candidate, or to propose any person as a candidate, must leave a notice in writing of such his intention, with the Secretary, at least fourteen days before the day of election, and exclusive of such day, and in such notice must be stated the name of the director, in whose place the proprietor proposes himself, or is proposed, for re-election. WM. LECKIE, Sec. 26, Austin-friars, Nov. 30.

CORNUBIAN LEAD AND SILVER MINE, in the parish of Perranabuloe, county of Cornwall.—The directors hereby give notice, that the HALF-YEARLY GENERAL MEETING of the shareholders in the above Mine, will be held at the London Inn, Devonport, on Monday, the 9th of December next, at Twelve o'clock at noon,—to pass accounts, and to take into consideration the affairs of the Mine; also to determine upon such measures as may be deemed expedient for its future working. Shareholders who attend the Meeting will be expected to produce their scrip certificates. By order of the board of directors, ROBERT LAWS, Secretary. Devonport, Nov. 13.

CALLS.

LONDON AND BIRMINGHAM RAILWAY.—CALL OF EIGHT POUNDS on the £32 shares, making £24 per share called for.—The Directors of the London and Birmingham Railway Company having resolved that a THIRD INSTALLMENT of £8 per share, payable on or before the 31st of January, 1840, should be called for on the £32 shares of this company, the proprietors of such shares are hereby required to pay, on or before the appointed day, to any one of the undermentioned bankers, the sum of £8 on each of their respective shares, viz.:—

London.—Messrs. Glyn and Co., 47, Lombard-street; or at the Office of the Company, Euston Station.

Birmingham.—Messrs. J. L. Molliet and Son, or the Birmingham Banking Company.

Liverpool.—The Bank of Liverpool.

Manchester.—Messrs. B. Heywood and Co.; or the Bank of Manchester.

The bankers have been severally instructed to charge interest, at the rate of 5 per cent. per annum (according to the provisions of the Act of Incorporation) on all sums which shall be tendered after the 31st of January.

GEORGE CARR GLYN, Chairman of the Board
J. F. LEDSAM, Deputy-Chairman of Directors.
By order, R. CREED, Secretary.

Nov. 8.

WEST WHEEL JEWEL MINING ASSOCIATION.—Notice is hereby given, that a CALL of TEN SHILLINGS per share has been made (in conformity with the deed of settlement), payable on or before the 31st of December next, into the London and Westminster Bank, to the credit of the association, with the Western District Banking Company, Truro, or into the bank of the said company at Truro. By order of the board, ROWLAND NICHOLSON, Secretary. 23, Threadneedle-street, Nov. 29.

DIVIDENDS.

SOUTH CARADON MINE.—A General Meeting of the shareholders in this Mine was held on the 26th instant, when a DIVIDEND of TEN POUNDS per share was declared, which is now payable, either on the Mine, or at the Mining-office, 1, Chapel-place, Poultry, London. The shareholders are hereby informed, that the prospects of the Mine are more flattering than they have yet been.—Dated South Caradon Mine (near Liskeard, Cornwall), Nov. 27.

JOHNSON AND LITTLEJOHN announce to their Friends and the Public, that they have arranged with the following most respectable houses for the SALE of their various productions:—

The VARTAG IRON COMPANY, South Wales—Strong Welsh Pig Iron, Bar Iron, Rails, &c.

ALISON, MERRY, and CUNINGHAME, Carnbroe Iron Works, near Glasgow—Strong and very superior Scotch Pig Iron.

The YNISCEDWYN IRON COMPANY, near Swansea—Pig Iron, of extraordinary strength and fluidity, smelted under GEORGE CRANE'S patent, with Anthracite Coal.

PEEL, WILLIAMS, & PEEL, Manchester—Locomotive and other Engines, &c.

PETER STUBBS, Warrington—Steel, Lancashire Files, and Tools.

THOMAS TURTON and SONS, Sheffield—Every description of Steel and Machine-cut Files. And respectfully solicit orders.

TRAFFORD CHAMBERS, SOUTH JOHN STREET, LIVERPOOL, November 7.

WELLINGTON IRON WORKS, SUNDERLAND.—WILLIAM NICHOLSON and SONS.

IRON MERCHANTS, CHAIN & ANCHOR MANUFACTURERS, SHIP SMITHS, &c., take this opportunity of acknowledging with respect the encouragement that their establishment has experienced for a period of thirty years; and they now have to inform their friends and the public, that they have erected

A CAST-IRON AND BRASS FOUNDRY,

with Mill-wrights' Shops, contiguous to their other works, and have selected efficient workmen to enable them to execute orders in every branch of their business on a large scale, with punctuality and dispatch.

* Ship's Heavies, Patent and other Windlasses, Pumps, Double and Single Purchase Winches, Hoist Pipes, Stoves, with every article in Shipping, Machinery, &c.—Wellington Iron Works, Sunderland, Oct. 31.

DEVON AND CORNWALL RAILWAY.—At a Meeting of the Committee of the Devon and Cornwall Railway, held at Pearce's Hotel, Truro, on the 20th of November,

The EARL PALMOUTH in the chair,

The minutes of the general meeting were read.

The Chairman requested the Secretary to read letters from the Right Hon. Lord Elliot, desiring his name to be added as a subscriber of Ten Guinea; Captain Macdonald, stating the probable expense of a survey; Mr. MacKercher, giving some information respecting the preliminary arrangements for constructing a line, Sir J. Burgoyne, suggesting the desirableness of employing Mr. Vignoles, Mr. St. Aubyn, respecting the best line; Mr. C. Dean, with a chart of a suitable line; W. A. H. Arnold, Esq., offering his services to the committee in his neighbourhood; and hoping one great line may be adopted; Mr. Whitford, respecting the intended line from Plymouth to Exeter; Mr. Puddick, London, offering gratuitous services, and others on various subjects.

It was then resolved:—

1. That a sub-committee be appointed to obtain information as to the progress of the railway now in the course of formation between Bristol and Exeter, and the probable period at which it may be expected to arrive at that city, and also any proposed railway intended to connect the metropolis directly with the city of Exeter.

2. That the sub-committee also obtain information as to any railroad contemplated between Exeter and Plymouth, and the state of preparation for carrying it into effect.

3. That every information be obtained as to the traffic that may be expected on a railway between Exeter and Plymouth, distinguishing a direct line from one connected with a railway from Exeter to Plymouth, together with all other information which may be thought useful to the undertaking.

4. That the sub-committee be authorized to make such payments out of the funds subscribed under the resolution at the County Meeting as may be necessary to obtain the information required.

5. That W. Mansel Pleydell, Esq., be Treasurer, and that the sums subscribed be paid to him with as little delay as possible.

6. That the following gentlemen be appointed a sub-committee, to be assisted by the Treasurer and Secretary, who shall be ex-officio members, viz.:—

J. E. VIVIAN, Esq., M.P. H. WILLIAMS, Esq.

J. T. TREFFRY, Esq. J. FAYNTER, Esq.

ALFRED FOX, Esq.

7. That this committee meet again on the 24th January next, in the Council-room, at Truro, unless previously convened by the sub-committee, which they are empowered to do if they deem it useful.

That the thanks of the meeting be given to the Chairman, for his conduct in the chair.

The sub-committee met on Tuesday, the 25th of November instant, at Truro, and resolved to employ a suitable person in procuring all necessary information, as to the traffic that may be expected on the railway between Exeter and Plymouth, and that the gentlemen of the immediate neighbourhood be requested to assist in procuring this information.

VALUABLE MINE SHARES.—HALLENBEAGLE.

SHUTTLEWORTH AND SONS are instructed to include in the Periodical Sale of Reversionary Interests, &c., appointed to take place at the Mart, on Friday, December 6, at Twelve, in Lots, FOUR SIXTY-FOUR PARTS or SHARES in that promising mine, called HALLENBEAGLE, in the parish of Kenwyn, near to Truro, in the county of Cornwall, with the like portion of all Ores and Materials thereto belonging. This mine is carried on upon the Cost-book system usual in the county, under judicious management, is now selling considerable parcels of ore, likely to realise good profits, and is considered a desirable investment.—For further particulars apply to Captain John Hamby, on the mine; at the Mart; and of Messrs. Shuttleworth and Sons, 24, Poultry.

HIGHLY ELIGIBLE INVESTMENTS.—Shares in Tresavan and other valuable Mines in the county of Cornwall, by order of the Executors of the late Thomas Teague, Esq.—PERIODICAL SALE.

SHUTTLEWORTH AND SONS have been instructed by the Executors aforesaid, to include in the PERIODICAL Sale of Reversionary Interests, &c., appointed to take place at the Mart, on Friday, December 6th, at Twelve o'clock (in Lots), Six Ninety-sixths parts or Shares in that most productive and profitable Copper Mine, called "Tresavan," situated within the Townments called by the several names of Tresavan and Tretharup, in the parish of Gwennap, in the said county of Cornwall; One Hundred and Fifty-six Three Hundred and Twenty-eighths parts or Shares in "South Wheal Basset Mine," situated in the parish of Illogan, in the same county; Sixteen Sixty-fourths parts or Shares in "Wheal Speed Mine," situated in the parish of Breage, in the same county; and the whole of "Wheal Curtis Mine," situated in the parish of Rowan, in the same county.—Tresavan Mine is too well known to Mine Adventurers to require description; it may suffice, therefore, to state, that the clear profits divided amongst the shareholders for the last Seven Years amount to the enormous sum of £300,000, and that the profit netted upon each Ninety-sixth share per month, during that period, has averaged about £7; and the present appearance of the Mine warrants the confident expectation of equal, if not greater, profits, for very many years to come. It may, indeed, be safely averred, that this is the most profitable and eligible Mine Adventure in Great Britain. The other Mines present the fairest prospects of success, and stand deservedly high in the estimation of those best qualified to pronounce an opinion on them: this fact may be easily ascertained by inquiries of experienced miners in the neighbourhood of each mine.

For any further particulars or information as to Tresavan Mine, application may be made (free of postage) to the Auctioneers; John Curry, Esq., 1, Broad-street, Cheapside; Messrs. Adlington and Co., solicitors, Bedford-row, London; Messrs. John and Henry Trefusis Smith, solicitors, Devonport; Messrs. Paul, Smith, and Roberts, or Messrs. Simmons, Passingham, and Simmons, solicitors, Truro; or for further particulars or information respecting South Wheal Basset, Wheal Speed, and Wheal Curtis Mines, to the Auctioneers; John Curry, Esq.; Messrs. J. and H. T. Smith; or Messrs. Simmons, Passingham, and Simmons.

SUNDRY STEAM-ENGINES FOR SALE, BY PRIVATE CONTRACT.—viz.:—

One 63-inch Cylinder ENGINE, without Boiler.

One 25-inch do. do.

One 30-inch do. do.

One 30-inch do. complete.

One 18-inch do. do.

One 36-inch do. do.

And sundry MINE MATERIALS.

Application to be made at the office of the late Thomas Teague, Esq., or to Capt. Wm. Tonkin, Redruth.—Dated Redruth, Nov. 8.

TO BE SOLD, by Private Contract, One 63-inch Cylinder

ENGINE, with Iron Beam and Condensing Work complete, and one or two Boilers. One 45-inch Cylinder ENGINE, Iron Beam and Condensing Work, without Boiler. One 21-inch Cylinder ENGINE, without Boiler. A large quantity of Pumps, Working Barrels, H and Clock-seat Pieces, Windbores, and a great variety of other Mining Materials.—Apply to Captain W. Richards, Great Wheal Fortune, near Marazion.—Dated October 16.

TO MINERAL PROPRIETORS IN COAL AND IRON.—An opportunity now offers for receiving a YOUNG GENTLEMAN wishing to LEARN PRACTICALLY the ART of MINING and MANUFACTURING IRON, together with the CIVIL ENGINEERING and MECHANICAL DEPARTMENTS necessary for such establishments, with whom a LIBERAL PREMIUM will be expected.—For particulars, all letters (post paid) addressed to "J. C. M.," at the Editor's Office of this Journal, will be duly attended to.

TO COAL-OWNERS, MINERS, RAILWAY CONTRACTORS, EXCAVATORS, &c.—HALL'S PATENT HYDRAULIC BELT, or WATER ELEVATOR.—By this simple, efficient, and economical invention, which has many advantages over pumps of every description, water is raised and discharged in a uniform and continuous stream, at any required elevation. The work produced, in proportion to the power applied, is much greater than in the case of the ordinary pump of the best construction. The apparatus is now at work on the premises of Messrs. Eveleigh and Neave, Greengrave, Rotherham, where it may be inspected any day, from nine to ten o'clock in the morning, and from three to four in the afternoon; also at Mr. Edward Hall's, Sunny Bank, Ordsall-lane, Salford; and at the Tunnel, on the Manchester and Sheffield Railway, at Saltersbrook. A working model can be seen at the King's Arms, King-street, Manchester, where Mr. Hall will give every requisite information.

COLLEGE FOR CIVIL ENGINEERS.

PRESIDENT—His Grace the Duke of Buccleuch, K.G., F.R.S.

COUNCIL OF ADMINISTRATION.

CHAIRMAN.

His Grace the Duke of Richmond, V.P.

The Marquis of Tweeddale, V.P.

DEPUTY-CHAIRMAN.

The Right Hon. the Earl of Devon, V.P.

Berkley Westropp, Esq.

SECRETARY.

Messrs. Snow, Strahan, Paul, and Co., 317, Strand; Messrs. Williams, Deacon, Labouchere, and Co., 30, Birchin-lane.

SOLICITORS.—Messrs. Bridges and Mason, 23, Red Lion-square.

SECRETARY.—Mr. J. E. H. Curtis.

Notice is hereby given, that the prospectus is now ready for circulation, and the office opened from Ten to Four o'clock daily for registration and general business.

By order of the Council, J. E. H. CURTIS, Secretary.

Prospectuses may be had at the office, where every information will be given; of the solicitors, Messrs. Bridges and Mason, 23, Red Lion-square; of Mr. Weale, architectural library, 30, High Holborn; of Mr. Satchell, bookseller, 23, King-street, Covent garden; and at 34, Cornhill, City.

All communications must be post paid, and addressed to the secretary.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

PATENT METALLIC ZINC PAINT.—The several uses to which a perfect Metallic Paint may be applied as protecting iron and wood-work from corrosion, or the action of the atmosphere is so great, that an article, pure in itself, as that now submitted to the public, has long been considered a desideratum.

The PATENT METALLIC ZINC PAINT is rendered in the form of an impalpable powder, adapted peculiarly to the protection of the substance covered therewith, while its price is one-third lower than that of White Lead, thus at once combining economy with the improved quality and advantages possessed by this article—forming an important consideration in its use and application, more particularly to Shipping, and to structures liable to injury from the action of salt water or atmospheric influence, being a complete Metallic Coating.

Measurements now being taken for its adoption by Government and several Public Bodies, it having already been subjected to tests highly satisfactory to the Patentees, indeed, did not the Paint possess the Metallic properties which render it so valuable, the reduction in its cost would alone insure its general use.

Further information may be had, on application, to Mr. HENRY EVELING, at No. 57, New Broad-street, London; Mr. E. DEVLON, Clyne-wood Metallurgical Works, near Swansea; or to Messrs. Kewenau and Sons, 120, Cheapside (the Agents in London), to whom all orders should be forwarded.

THE THAMES TUNNEL IS OPEN TO THE PUBLIC

every day (except Sunday), from Nine in the morning until dark. Admission One Shilling each. Entrance near the Church at Rotherhithe, on the Surrey side of the River. The Tunnel is brilliantly lighted with Gas, and is now completed to within 100 feet from the Wharf-wall, Wapping.

By order, J. CHALKER, Clerk to the Company.

Thames Tunnel Office, Wapping-buildings, Wapping, Nov.

RAILWAY MAGAZINE, and COMMERCIAL JOURNAL.

—This work, which has attained the greatest celebrity for the value of its articles, and its uniform success in all cases it has advocated, will now be published weekly, price Sixpence, and go post free. The first Number was published on the 17th August, containing of twenty-four closely and handsomely printed pages. It is intended to contain full and accurate reports of all railway and joint-stock meetings; accounts of new companies, banks, mines, assurances, canals, docks, and fares of all railway trains throughout the kingdom; prices of stocks, shares, gold, silver, cotton, wool, general merchandise, and scientific intelligence, &c. &c. Orders received by all news agents, and at the office, No. 3, Red Lion-court, Fleet-street, London. Agents for the paper, and for receiving advertisements, in Liverpool, Arnold and Son, Post-office-place; Manchester, Lewis, Market-street; and Birmingham, Mansell and Co., 31, Union-street.

PROCEEDINGS OF PUBLIC COMPANIES.

EASTERN COAST OF CENTRAL AMERICA COMMERCIAL AND AGRICULTURAL COMPANY.

DIRECTORS.

P. H. Abbott, Esq.
Captain F. D. Bingham, R.N.
Charles Boutjot, Esq.
John Dawson, Esq.

William Hood, Esq.
Adam Murray, Esq.
David Pollock, Esq., Q.C.
John Spurgin, Esq., M.D.

SECRETARY—P. D. Souper, Esq.

CASHIER AND ACCOUNTANT—L. S. COX, Esq.

SUPERINTENDENT—Young Anderson, Esq.

BANKERS—Glyn, Halifax, Mills, and Company.

At a general meeting of the proprietors held at the Jamaica Coffee-house, on Monday, the 25th inst., the directors presented the following REPORT.

At your meeting, on the 11th September, 1837, you were advised that no delay should take place in sending an envoy to the city of Guatemala, for the purpose of obtaining a confirmation of the grant of the province of Vera Paz, together with an acknowledgment that the first 100 families had been duly sent out, agreeably with the conditions of the grant, and to procure a postponement of the period within which an extended number of settlers should be located; and to negotiate a further grant of the port and district of Santo Tomas. There were several other points of comparatively minor importance, but of great intrinsic value connected with this mission, among which we may notice a right to cut mahogany, and the exclusive privilege of steam navigation. To accomplish these objects, Mr. Young Anderson was selected to proceed to Central America, and he sailed from England accordingly, on the 15th September, 1837—from whence he returned on the 9th day of September last.

Your directors immediately required from him a report of his proceedings, and detail of all the information which he had to communicate touching the state of the territory granted to you, and the measures which it would be requisite to adopt, without delay, to carry out the objects of the company, and to render the necessary outlay beneficial to the proprietors. Having obtained this report from Mr. Anderson, which we have printed and circulated for your information, without curtailment or alteration, we have taken the earliest opportunity to assemble you together on the present occasion, and to present to you, for your consideration, such observations as have occurred to us to be material. It will be well, in viewing the present condition of the company, to take a short retrospect of its state at the period when you last met.

At the time of Mr. Anderson's arrival in Vera Paz, in 1837, he found the company, as stated by him in his dispatches, in bad odour—a political ferment prevailing, one cause of which was alleged to be the privileges which had been granted to the company—there was a suspension of correspondence between the Chief of the State and the company's agent, Mr. Fletcher—the company's charter had been suspended, and the port of Santo Tomas had been conditionally conceded to another company, and vessels had already arrived in the country with materials for the erection of buildings by the company in question.

Your directors have great satisfaction in drawing your attention to the contrast which is presented by the present state of the company's affairs, as exhibited in the report of Mr. Anderson, your superintendent, accompanied by the documents which he has laid before your directors. His success in obtaining the accomplishment of the company's wishes have been signal and complete; but this result has been effected by the exercise of great ability, patience, perseverance, and tact—pursued through difficulties, obstructions, and dangers of various kinds, which will not fail to excite your admiration and commendation. Your directors deem it a very great piece of good fortune that the company have had the services of so able and indefatigable an officer. The company are now, therefore, in possession of two extensive and valuable grants, namely, one of the entire province of Vera Paz, containing fourteen millions of acres, and another of the port and district of Santo Tomas, containing one million of acres. These lands are of the most fertile description, with a variety of climate, which favours the growth of almost every vegetable production of the tropical and temperate zones, and having navigable rivers, on which considerable traffic already exists, and which, every measure adopted by the company in pursuit of its objects, will not fail greatly to increase. We may notice, too, that horses, mules, cattle of all descriptions, and poultry, and their provender, are plentiful and cheap.

These grants are, of course, subject to certain conditions, which are plainly defined and easy to be complied with. These you will have collected from the copies which have been printed and circulated for your information; and our chief object in this report will be to state what preliminary measures it will, in our judgment, be advisable to adopt, in order to carry out the undertaking with proper energy, and to realise those expectations which the proprietors must have had in contemplation in becoming members of the company. It will be obvious, that unless a proper advantage be taken of the present position of the company, the benefits resulting from the exertions of your superintendent will be lost; and we have no doubt that you will participate with us in the feeling, that no time should now be suffered to pass without active operations. We state this with the greater confidence, when we advert to the readiness with which the proprietors came forward with the last call upon their debentures—for when it is considered that very many of the holders are unknown to the directors, in consequence of which their only mode of communicating with them was by advertisement in the newspapers—there can be no better or stronger proof of the good opinion entertained of the undertaking than the extent to which the last call has been paid up—there being only eighty-five debentures upon which the amount has not been paid out of the whole number of 5000. The debentures in arrears of payment are forfeited to the company, and must be disposed of by public auction.

Before we proceed further, we beg to state that, at the outset of this company, it was perhaps natural to expect that some degree of jealousy would be felt by those who are interested in the neighbouring British settlement of Belize, as it would be supposed that the success of this company would operate as a rivalry with the prosperity of that settlement. It will be unnecessary here to do more than allude to this circumstance, and principally for the purpose of informing you that no unfavourable effects are henceforward to be apprehended from such a cause, whilst we hope that, as we advance, our brethren of Belize will find it to be consistent with their own interests to look with less jealousy upon our operations; indeed, it is so obvious, that all the objects of the company, if conducted with spirit and energy, will so much tend to the benefit of all parties, that an enlightened policy must necessarily look favourably upon its progress. In the early existence of this company, from causes which it would be now useless to investigate, the measures pursued were futile and unproductive, and its funds were not only exhausted, but debts to a considerable amount had been contracted. You are now entirely free from debt, and there is a balance at your bankers', which will be nearly, or quite, sufficient to meet the expenditure to Christmas next, both here and abroad.

To enable you the better to form a judgment on this subject, we shall lay the company's accounts before you, by which it will appear, that out of the sum of 18,611.10s., the result of the deposit on converting the shares of the old company into debentures of the new, with the sale and payment away of those not so converted, and the recent call, the sum of 7317.10s. 7d. has been disbursed in the discharge of the outstanding debts existing when the present board of directors was constituted; 2760.10s. 6d. is the amount paid as interest on the debentures; and 4741.2s. has been the entire cost of working out the almost miraculous change in the position of the company, to which we have already alluded.

Before we proceed to set before you the estimate of the desirable amount of expenditure for the next year, as made out by Mr. Anderson, it will be encouraging to you to know that the prospects held out by Vera Paz, and the advantages offered by the port of Santo Tomas, are exciting considerable attention. Numerous inquiries have been made at the company's offices as to the intentions of the company, and as to the period at which they will be prepared to dispose of lands and to receive settlers. And your directors consider themselves justified in saying, that

they entertain no apprehension of being in want of settlers, for, independent of the numerous inquiries alluded to, the incentives to settle in Vera Paz are unusually strong and inviting. We have already spoken of the climate and of the soil, which presents equal encouragement; the indigenous productions of the country are of almost every description, inferior to none, and superior to most, in other parts of the globe.

Whilst, however, it will be the policy of your directors, in the management of your affairs, to limit the permission to settle as much as possible to such as are able to afford indisputable evidence of their respectability, and fitness to become substantial participants in this promising undertaking, the price of land, to the early settlers, will be fixed by them at as moderate an amount as will be prudent and practicable. The sale of 100,000 acres will be adequate to discharge the interest on your debentures—defray the expenses contingent on the conditions of the grant—and leave a surplus for division among the proprietors.

Your board of directors have, therefore, no hesitation in recommending your powers to your future attention, as fraught with the means of conferring a very great and signal benefit on our countrymen, by offering to them a new field for emigration, and creating a new market for their manufactures and commerce, the effect of which will be great pecuniary advantage to the proprietors.

We now proceed to state the earliest steps which we propose to adopt.

1. To send out two steam-boats—one for the outward navigation, and the other for the river Poichie. The object of this measure is to secure the exclusive privilege of steam navigation in those waters, as well as to provide the ready and certain means of conveying settlers upon their arrival from the mouth of the Gulf Dulce to the company's settlements. The want of such accommodation was severely felt by the first emigrants, and its existence will render great facility to our future proceedings. When not thus employed, the steamers will be engaged in the carrying trade already existing, but now, subsided by the use of mules and row boats, but which must be quite superseded by steam conveyance, on account of its greater expedition and security—and the extent of which trade may be expected to increase very rapidly.

The beneficial returns to be looked for from such an outlay of capital, cannot, as we imagine, be doubted.

2. To throw a bridge over the Rio Grande, or Motagua, which has been introduced as a condition of the grant, in consequence of the delay which has taken place in carrying forward the colonisation of the country. Your board of directors, however, are justified in anticipating that the company will be indemnified for the cost of this bridge (which will not be of very great amount, as we propose to avail ourselves of a chain bridge, invented and brought to perfection by Dr. Spurgin, one of your board of directors) by the tolls which the company are privileged to take, as there can be no question that the existence of such a bridge will greatly increase, as it will much facilitate, the intercourse between the company's possessions and the interior. We have to add, that the simplicity, security, and cheapness of Dr. Spurgin's bridge would have strongly recommended it for adoption even had not its inventor gratuitously presented it for the company's use—an act of liberality, which will doubtless elicit, as it deserves, your warmest thanks.

3. To dispatch with Mr. Anderson some artisans and labourers, who will erect houses, and prepare the way, for settlers.

Beyond the disbursements included in the estimates before you, the salaries of officers, and other ordinary expenditures in conducting such a concern, are to be added; and we have also to take care that, if contrary to all expectation, it should happen that the number of settlers purchasing lands should fall short of the stipulated quantum of 100 families, that number must be completed, and located in Vera Paz, at the company's expense, by the middle of August, 1842.

As we shall have occasion to meet you from time to time, to report to you our progress, it is not necessary, on the present occasion, to notice, further than we have done, the conditions of the grant of Santo Tomas, our first object being to act upon the grant of the province of Vera Paz.

We have thus laid before you the prospects which now open to the company, and which we are of opinion afford much matter for congratulation. We have endeavoured to pursue with steadiness and economy the objects which were confided to us. The success which now promises to attend the company affords strong encouragement to prosecute those objects with energy, and we shall endeavour to execute the trust reposed in us, so as to promote your interests in the most extensive manner; and we hope, that at the next meeting of the proprietors, we shall be enabled to announce to you a substantial progress in the establishment of your important colony.

To promote this desired end, we wish to impress upon every proprietor, that he may be able to assist the efforts of your directors; for it is obvious that every one may contribute to the number of settlers by active inquiries among his acquaintances, and by making known, as widely as possible, the objects of the company, and the board of directors will receive the communications of the proprietors with great satisfaction, and fall not to act upon them with the utmost promptness.

We therefore hope, that every member of the company will make its advancement the object of his own individual exertion, leaving to the board of directors to carry such exertion into full effect.

RESOLVED—That the report of the directors now read be received and entered on the minutes of the proceedings of this day, and be printed, and a copy sent to every shareholder.

The estimates for the year 1840 were then read, which were of small amount, being for the expenditure necessary prior to the reception of the first body of settlers, and until they shall be enabled to select their land lots and locate themselves. It was stated that some gentlemen, possessing large landed property in Ireland, were disposed to purchase lands of the company, for the purpose of locating Irish settlers upon them.

The meeting was informed that a charter for a bank at Guatemala had been applied for by a party of influential persons in this country, and there was no doubt that by this time it has been obtained from the government of Central America. That the establishment of a bank could not fail to be highly advantageous to the company, as affording facilities and security to merchants and others settling in the company's territory. It was also mentioned that a new method had been discovered, and now brought to perfection, for extracting dye from the woods which produce colouring matter, and which would be of immense advantage to this company, whose territories abound in indigo and valuable dye woods of every description.

The following resolutions, having been duly moved and seconded, were unanimously carried—

That this meeting highly approve of the measures which have been pursued by the directors, for securing the territorial grants in Vera Paz, and for generally forwarding the interests of the company.

That the thanks of this meeting are eminently due, and are hereby presented to the directors, for their past exertions, and that they are entitled to the confidence of the proprietors at large.

That, as it is desirable to embrace the first favourable opportunity for issuing the remaining debentures, to complete the present capital of the company, the directors be, and they are hereby, authorised to issue such debentures, at such time, and upon such terms, as to them may appear most eligible, so as that the discount do not exceed 5 per cent.

That the thanks of the company be given to Mr. Anderson, for his exertions in its favour, and for his management of their affairs in Central America.

That Mr. Jeremiah Barrett, and Captain William Crozier, be appointed auditors of this company.

That the thanks of the company be presented to Dr. Spurgin, for his talent and liberality in the invention, and presentation to the company, of a new plan for the erection of chain bridges.

Thanks were then voted to the chairman, for his conduct in the chair, and the meeting, which was characterised by the perfect unanimity of all parties, was adjourned.

FRENCH PATENT COAL COMPANY.

A general meeting of the proprietors in this undertaking was held at London Tavern, on Thursday, 28th inst.

JOHN HARMAN, Esq., in the chair.

The SECRETARY having read the advertisement convening the meeting, The CHAIRMAN said that the present meeting was called for the purpose of laying before the proprietors the report of the directors, explanatory of the delay which had taken place in the carrying out the operations of the company, and the present state of its prospects, on account of the receipts and expenditure, and to consider the best steps to be taken for its future government; and he should afterwards be most happy to answer any questions which any proprietor might ask.

The directors' report was then read, which explained the past proceedings of the company, its present prospects, and the views of the directors in immediately establishing themselves in some of the French ports for the manufacture and sale of the patent coal, and that they were in a situation immediately to take the necessary steps without any further call, on the present meeting giving them the necessary power.

The statement of accounts was submitted; the expenses incurred had, up to the present time, amounted to 650*l.* 1*s.* 1*d.*; 3000*l.* had been paid to the patentee; they had in their bankers hands 295*l.*, and a deposit of

3000*l.* in the London and Westminster Bank, which was receiving an interest of 3 per cent. per annum.

The CHAIRMAN said that considerable delay had certainly taken place in carrying out the operations of the company, but which would, he trusted, in the end, be attended with advantage; the directors, watching the proceedings of the British Asphaltum Company, thought it advisable to lay on their own, and instead of being at the expense of the experiments which were necessary, they had obtained the use of the premises and machinery of that company at low cost, where they had so far matured their plans as to produce the patent coal which was now burning in the room, and which he, as an individual, had no doubt would, if the thing was properly followed up, produce most profitable results. The patentee had agreed to withhold 1500*l.* of his claim, to stand over until such time as the company were receiving profits; and the directors were ready immediately to commence operations in some of the French ports on receiving the concurrence of the meeting to that effect.

Mr. BOWDEN feared the works could not be carried on to advantage, and considered the wisest plan would be to divide the assets which were now in hand (nearly 3000*l.*) among the shareholders, and to grant licenses for individuals to work the patent in Bourdeaux, Boulogne, Rouen, &c.; this plan could be carried out without one farthing more risk, and he should submit a motion to this effect to the meeting, if it seemed to meet its concurrence. Several proprietors assented to the proposition, but

The CHAIRMAN said, on the part of the directors, they were willing to abide by any resolution which this meeting might come to; indeed, if the company was broken up, it would relieve them of much responsibility; but being interested in the undertaking equally with the other shareholders, they certainly could not advise such a step. In the first place, the verbal agreement entered into by Mr. Wood, the patentee, was upon the condition of immediately carrying out the patent by adopting the report which had just been read; if, on the contrary, they resolved to abandon the concern, his 1500*l.* must be paid, which would leave very little to divide among the shareholders. Then, again, they had sufficient funds in hand for all purposes; they did not ask for more money; and, indeed, if they could not see their way clearly, and be sure that profitable results might be expected, they would do nothing. He was as sanguine as ever as to the success of the company, and he thought, with so many advantages now within their reach, it would be madness to decline proceeding.

A PROPRIETOR said he had not come out prepared to take any prominent part in the business of the day, but he begged to call the attention of the meeting to the standing and respectability of the directors, as well as to the fact that they were equally interested in adopting measures which would prove advantageous to them as shareholders, and consequently to the proprietors at large. He thought the wisest and safest plan would be to have confidence in the directors, allow them now to follow up the thing with spirit, and to give them the necessary power by adopting their report.

Several questions were asked as to the agreement with the patentee, its legality, &c., which were satisfactorily answered; and a motion having been submitted to the meeting, and seconded, the directors' report was received and adopted.

Thanks were then voted to the chairman and directors; the chairman returned thanks, and the meeting separated.

MOORE AND ROBINSON'S NOTTINGHAMSHIRE BANKING COMPANY.

The third annual meeting of the proprietors was held at Nottingham, on Thursday week. T. MOORE, Esq., in the chair.

The CHAIRMAN opened the business of the day, by a few observations upon the continued prosperity of the company's affairs. After announcing that James Nixon, Esq., had been re-appointed director, along with himself and Frederick Robinson, Esq., he called upon Mr. Rawson to read the report. The report announced that the business and prospects of the company continued to improve, and that having increased the reserved fund to the full amount of 10,000*l.* the directors were enabled to declare a dividend of 10 per cent. for the past year. They had also the satisfaction of stating that the shares sold during the year had realised an advanced premium. The report was considered highly satisfactory, and, on the motion of Mr. Cartledge and Mr. Cheetham, was received, and ordered to be printed.

Thanks were voted to the directors, and the committee of proprietors, on which Messrs. J. Mills and H. Leaver were re-elected; the usual vote of thanks to the chairman having been passed, and the meeting broke up, highly satisfied with the proceedings of the day.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

We have just received the report of the directors of this Association, adopted at their last meeting on the 14th inst., which we now insert.

The report which the directors have to lay before the shareholders upon this occasion of the usual half-yearly meeting, will present some new features, which, whilst they will appear of great importance and interest at this moment, may also lead to still more important consequences hereafter. The directors have much pleasure, in connection with these observations, in referring to the produce of the half-year ending the 30th June last, because a considerable portion of the increase which has been obtained, has been from the very spot which has so lately become the undisputed property of the association. The particular points to which the directors refer are, the purchase made by Mr. Duval on behalf of the association—first, of the shares in the Socorro property held by Senhor Louis Soares and Captain Quintao, which secures to the Gongo Mine the whole of the water of that estate, which before was in dispute, and which is most essential in the stamping operations; and secondly, of Senhor Louis Soares two important estates of Capim Gordura and Campbell—the former affording ample pasturage for the cattle, and the latter giving the necessary and constantly required supply of timber for mining and other purposes, thereby making an independent of contractors, and allowing the old woods of the association to grow. The paragraph which will be found in the chief commissioner's recapitulation offers such full particulars on these points, that it is not now necessary to do more than to refer to them in their proper places.

There is another subject to which the directors would wish to call the attention of the shareholders, which is the renewed attempt to smelt and manufacture iron at Gongo Somo, and it is to be hoped, that the experiments in progress may succeed, because, in their results they will, if successful, be highly important, making the association independent in so essential an article.

The directors wish they could, as they had hoped to do, now announce the positive return of the deposit money. The promise of its return in silver, however, has been made by the Minister of Finance to Mr. Duval, in the presence of Mr. George Naylor (the agent of the association in Rio), and confirmed by the Regent personally, as well as by an order in his name, signed by the Minister of the Empire, dated the 17th July, and addressed to the Minister of Finance (a copy of which has already appeared in this Journal), and the directors have too much confidence in the good faith of the Brazilian Government not to feel assured that it will shortly be made.

On the subject of the reduction of the duty paid by the association, unhappily, as on former occasions, the directors have only their disappointment and mortification to repeat, and to express their fears that the Brazilian Legislature and Government will again allow the session to pass away without doing justice to the rightful claim of the association. The directors have now to refer to the recapitulation sent over by Mr. Duval of the transactions at the mine for the six months ending the 30th June. His letter is dated Rio Janeiro, 9th August, and, therefore, the part that relates to the duty and deposit questions is up to that date,—from which we make the following extracts—

In the Deposit Question I must refer to my various letters, which convey not alone the expectations first entertained of the repayment of the 100 contos of Reis in silver, but the copy of the order for the repayment of the sum—an order, not only given by the minister of the empire to the minister of finance, but the execution of which, under any circumstances, was subsequently guaranteed to Mr. George Naylor and myself by the minister of finance, and to me afterwards by the regent, in the presence of the minister of finance. The only doubt, therefore, which attaches to the repayment of your deposit, is as to the period at which it will take place within a limited space of time. Some opposition, however, has been offered in the chamber of deputies to the repayment of the deposit, but I have since seen the minister of finance, who has repeated to me the assurance already given by himself and the regent.

In my review of the progress of operations at the mine, during the first six months of the year, I shall commence with the eastern section, and proceed from east to west. This eastern section was, by orders from you, founded upon the joint report of Mr. Michael Williams and Mr. Hocheder, contained in Mr. Williams' letter of the 4th of April, 1838, embodied in your 20th report to the shareholders, made the point of departure for examining the mine in depth by sinking Vesey shaft to the fifty-five fathom level, and thence driving east and west, and subsequently exploring the mine at greater depth. The prosecution of this plan, from the extent of its progress as described in my last recapitulation, has not led, during the six months now under review, to any results which can throw a cheering light upon the prospects of this section of the mine at this depth. Bayly's shaft has been sunk to the depth of the fifty-five fathom level, with a view to the examination of the southern part of the jacutinga by a cross-cut south. In considering the expediency of investigating the mine at greater depth under the fifty-five fathom level, the question presents itself as to the best spot whence to sink for that purpose. The plan pointed out by you, as referred to above, had marked Vesey's shaft, which is no doubt the most advisable, if immediate economy alone is to be considered; but immediate economy in mining is often increased expenditure in its consequences, and if convenience and advantage in the future working of the mine are to be considered, as they ought, in preference to any other consideration, it appears evident, that a shaft should be sunk in the middle part of the mine, whence levels can be pushed east and west, the extent of which in length, in either direction, can be

regulated by the nature of the ground and its appearance as to promise of produce, whereas the length of levels, starting from the extreme of the mine, must be considerable in their course, as a passage towards the other extreme, be the ground favourable or unfavourable, rich or poor. But for the circumstance of the eastern section of the mine being the starting point of our investigations, that section of the mine, which is wholly unproductive, might be stopped, and a considerable saving of expenditure would be thereby effected. The middle section of the mine has also continued, during the first six months of 1839, to wear the appearance and to produce the results noticed during the last six months of 1838. It furnishes food for three stamping mills—Joinville, Walker's, and Goldsmith's, and sends occasional small boxes, or portions of boxes, to the washing-house, thus exceeding by its produce the amount of its expenditure.

The western section of the mine, during the first six months of this year, has not deceived the promises it had held out, and occasionally performed, of improvement in the course of its veins westward; and it has, from its own almost unaided resources, yielded the best six-monthly return you have had, with one exception, for the last five years and a half. The months of March and May, and principally the latter, have contributed days of produce equal to some of the rich days of yore. Some part of this produce, and indeed the greater part of this produce, for the last six months, has been derived from ground which our former partners in Socorro estate contended to be within the limits of the Socorro property. The purchase of the remainder of the Socorro estate has settled this and all other questions relating to that estate as confers upon you all the uses and privileges you require for your mining operations, and giving you an ample supply of water. I wish to place before the shareholders the great and manifold advantages secured to the association by this purchase of the remainder of the Socorro estate, and of the estates of Capim Gordura and Campbell, effected at the same time, not only in a purely mining point of view, with reference alone to the extraction of gold, but also with reference to the position of independence in regard to those two essentials to the very existence of all mining operations, viz.—water and timber. The extension west of our operations in the western section of the mine, and south towards Cunha, has led to the necessity of three new shafts, which have been named in succession according to the seniority of your mining captains—Bray's, Collins', and Blaney's shafts. The appearance from Cunha, of stuff fit for the stamps, and occasionally for the washing-house, is favourable to a confirmation of the good expectations entertained of this part of the mine, and point still further westward by the working at Santa Gallo (the part of Socorro immediately adjoining Gongo) of a stamping mill, erected by a course of some extent in hard and soft ground through the estate of Capim Gordura, which had already been commenced by Senhor Louis Soares, and which he sold to the association, in as far as he had carried it with his shares of Socorro. From the foregoing statement it will appear, that the western ground is almost exclusively the property of the remainder of the mine, and of the mining establishment.

The directors do not think it necessary to offer any further observations on the recapitulation just read, except to point out, that, in obedience to the instructions adverted to in the last report, no new works have been undertaken except such as were indispensably necessary, such as, for instance, the continuation of the Rego for the Socorro water, which will contribute to the greater facility of working the stamps and the mine.

The quantity of gold raised between the 1st January and the 30th June last (both days inclusive) was 255*lbs.* 4*oz.* 10*dwt.* 17*grs.*, being 331*lbs.* 10*oz.* 10*dwt.* 23*grs.* more than in the preceding half year. The directors in their last report cautioned the shareholders against despondency; they repeat this caution, although the workings of July to the 31st August have been but indifferent.

The establishment at Gongo Somo consisted, on the 30th June last, of 144 Europeans, 214 native labourers, 172 negroes, 115 negresses, 65 negro boys and 61 negro girls—in all 812; and the report of their conduct is in every way satisfactory.

The shareholders are already informed, that the Imperial Brazilian government proposed to this association to undertake the agency of that government in England. The directors would have been anxious to have responded to this flattering mark of the good opinion of the Imperial government, but on referring to the deed of settlement it was found to be inconsistent with its terms, and was therefore respectfully declined. But the directors trust, that the readiness they evinced to be of service to the Brazilian government on that particular occasion, and respecting which the Brazilian minister at this court has expressed himself in terms of great approbation, will be the means of securing to the association the protection and favour of the Imperial government.

The directors now request the attention of the shareholders to the financial statement.

The balance of the financial account is £10,549 1 6
Less the sums borrowed, of which £11,900 were repaid in July last. 11,540 0 0

It is proposed to divide £2000 0 0
To add to reserve fund 353 11 1

Estimated value of gold dust not arrived 2433 10 5
2200 0 0

Leaving £4698 10 5

Applicable to the expenses of the present half-year.

It is with sincere satisfaction the directors again find themselves enabled to announce a dividend of ten shillings per share out of the net profits of the concern for the half-year ending the 30th June last, to the proprietors of shares who appeared as such in the books of the association on the 15th of October last, and which dividend will become payable at the office of the association on and after Thursday, the 4th of December next.

The directors have only now to renew their assurances of a faithful administration of the affairs of the association, and of their most diligent and unwearied attention to its interests, and in return for all the anxious moments they experience, they ask for the continuation of the confidence and friendly opinion of the shareholders.

NORWICH UNION LIFE ASSURANCE-OFFICE.

A meeting of the assurers in this office took place in the Assembly rooms at Norwich, on Tuesday, for the purpose of considering the report of the examiners who had been appointed two years since to inquire into and ascertain the precise position of the affairs of the society. The room was crowded to excess, and it was calculated that there were as many as between 500 and 600 assurers present. The discussion lasted upwards of eight hours.

Colonel HARVEY in the chair.

The CHAIRMAN having opened the business of the day, Mr. Alderman FAREBROTHER asked Mr. Biggild whether he was to understand that he had made up his mind with regard to an acquiescence in the suggestion of the examiners on the subject of the future remuneration to be paid to himself as the secretary to the society?

After some conversation, the nature of the duties which it was expected the secretary should perform was read to him in the following terms:—"That the secretary's salary be 2,000*l.* per annum, with the use of the house in Surrey (excepting such part as was let to the fire-office), and that he attend all meetings of the directors, prepare and enter the minutes, conduct the correspondence with agents, and the advertising, receiving, and giving receipts for daily payments, and cause the same to be sent to the bankers daily, making all payments, and generally conducting the affairs of the office not confided to the actuary."—Mr. BIGGILD eventually consented to meet the wishes of the examiners.

Mr. FULLER then rose, and after some preliminary observations, moved a resolution, which had for its object the appointment of a committee for the purpose of revising the laws of the society.—The Earl of ORFORD was of opinion, that after the expressions which had fallen from the examiners, such a resolution as that now proposed was perfectly unnecessary.

Mr. BARTHE, after passing a high eulogium on the examiners for the able and satisfactory report they had, after an inquiry of two years' duration, made, moved, as an amendment, the following resolution:—"That this meeting regards the report of the examiners as highly satisfactory, establishing the entire safety of the institution and the prospect of important future advantages to all who may effect insurances with it, and that the thanks of the society be given to Mr. Alderman Farebrother and Messrs. Steward and Lloyd for their most important services."—Mr. GODSON, M.P., was understood to second the motion.

After some conversation the resolution of Mr. Fuller was understood to be withdrawn, that gentleman at the same time intimating his willingness to support the proposition of Mr. Barthe.

Mr. F. G. SMITH then spoke at considerable length, and animatedly in strong terms upon the course which had been adopted by the London committee at the meeting in London, on Friday last. He particularly adverted to the speech made by Mr. Pontifex, and went on to say what satisfaction he had derived by a perusal of the masterly and convincing reply which had been given thereto by the hon. and learned member for Kidderminster, who, he was highly delighted to find, was at the present moment in the room.

Mr. WARD (of Prescott) said, if he had rightly understood the motion of Mr. Fuller, it had been that a board of referees should be appointed to decide as to the propriety or otherwise of the continuance of the existing laws of the society. Now, he thought such a board was unnecessary, seeing that the examiners had offered suggestions on that subject.

Mr. JONES (of Bristol) rose to order. The business of the day was the consideration of the examiners' report. He therefore submitted that that question ought to be proceeded with.

The CHAIRMAN, after some irregular conversation had been gone into, called on the secretary to read the address of the directors to the meeting.

Mr. LANGSLAW having made a few remarks in reference to the motion of Mr. Fuller, which he thought ought to be entertained first—Mr. Alderman FAREBROTHER said the hon. and learned gentleman might depend upon it that the examiners would not have their report smothered.—Mr. LANGSLAW could not sanction certain parts of the report, and therefore it was impossible for him to consent to the resolution being agreed to.

Mr. GODSON rose for the purpose of putting the meeting in possession of what it was that they had really met to consider. It was, "that they should consider the examiners' report." Now, that report was either to be confirmed in all its parts or not, and if any assurer was opposed to any portion of that document, there could be no question of his right to do so. But assuming that the report was correct, then it was the duty of the meeting to confirm it in all its parts.

Mr. Alderman FAREBROTHER said that the examiners had submitted to the directors certain regulations which they deemed requisite for the proper

conducting of the affairs of the society, which they expected would be adopted.

Mr. MORGAN (the attorney) then pressed forward and addressed the meeting, contending that the calculations he had made in 1829 had been taken on the proper principle.

Mr. Alderman FAREBROTHER said, that Mr. Galloway, the gentleman who had made the calculations for the examiners, was present, and ready, if necessary, to show that the valuations upon which they had acted were based on the proper calculations. Those calculations proved that when the bonus had been made in 1829, it had created a deficiency in the funds of the society of 126,000l.

A somewhat warm conversation here arose between the Alderman and Mr. Morgan, in the course of which the former asked for the production of the calculations which the latter had made in 1829, but they were not forthcoming. Mr. Morgan stating that they had been mislaid or lost.

Mr. PONTIFEX thought that the exhibition to which the meeting had just been a witness was a strong argument to show that there had been mismanagement in the affairs of the society, and that there ought not to be a continuance of the undivided way over its concerns in Norwich. The learned gentleman then replied to the observations which had been made on his speech in London by Mr. Smith. At that meeting he had distinctly said, that his most anxious wish was to avoid the introduction of litigation into the society, and that he was ready to exert every nerve to prevent such a proceeding. The learned gentleman then referred to the different charges which he conceived from the information he had received to have been well founded.

Mr. BIGNOLD also said the learned gentleman had been most grossly misinformed, and that he obtained his information from the productions of one of the fullest men in society.

Mr. Alderman FAREBROTHER said, that the whole amount of the mortgages which were in the secretary's name, and on which, by mistake, the declaration had not been engrossed and signed, was 6,900l.—The CHAIRMAN: Out of a million of a half.—Mr. Alderman FAREBROTHER: Yes, that was all.

Mr. PONTIFEX here attempted to resume, but the uproar was so great as to prevent his being heard.

Mr. JENNY (the Recorder of Norwich), on the part of the directors, hoped that the meeting would hear what the learned gentleman had to bring against the board, for otherwise they would not have an opportunity of disabusing the mind either of that gentleman or of the public of the impression which it appeared had arisen. He would, however, say, whatever mismanagement might have arisen in days gone by, that care would be taken to prevent its recurrence.

Mr. PONTIFEX said the meeting would now see the result of inquiry. Did they suppose that he would ever have brought the charges he had if he had known the real state of the case? No, he would rather have suffered his right hand to have been cut off. But he lamented that the examiners had not put the whole of the facts into their report. He was anxious it should be understood that in what he had done he had been actuated by no personal feelings. He said this solemnly, and he most unfeignedly begged to apologize to Mr. Bignold for what he had said about him on the subject. But at the same time that he made this apology, he felt it to be no more than justice to himself, as a man of character, of honour, and of respectability, to say that he had been misled. He was extremely sorry that he had been so misled. The information had been given him in secrecy and in confidence, and therefore he did not feel himself to be in a position to give up the name of his informant. He considered, however, that he had made an ample vindication of Mr. Bignold. [Considerable confusion arose, but it was ultimately put an end to by an understanding that the name would be privately communicated to Mr. Bignold.]—Mr. Pontifex, after a few further observations, concluded an eloquent speech in the most conciliatory terms.

Mr. BIGNOLD said, it was well-known that there was as much as upwards of 1,000,000l. of money which the office had advanced at different periods on mortgages. Those advances had been made in sums of from 50l. to 110,000l., the larger securities varying from 110,000l. down to 20,000l. and 15,000l., and on these larger amounts he knew of no instance in which the mortgages had been taken in his own name—they had all been taken in the names of the trustees. But, in the smaller amounts, the mortgages had been taken in his name, because it had been considered that there were certain advantages which would or might be derived to the office by such variance from the practice which was universally adopted with regard to the larger sums. But his name in every case where it had been inserted had been so inserted as the registered officer of the establishment—a fact which was of itself, he apprehended, a sufficient protection against any improper appropriation on his part. One advantage which necessarily had accrued to the office by the use of his name had been the saving of a vast expense, in consequence of its being thereby found that there would be no occasion to send abroad, or to distant parts, for the purpose of procuring the execution of the deeds by the trustees. Probably, however, he had been wrong in giving his consent to the insertion of his name in these documents; but, whether it were wrong or imprudent in him to do so, he had not hesitated in assenting to its use, from the conviction that it would do no injury to any one, and from the positive knowledge that by the adoption of that course very great expenses would be saved to the office. So soon as he had become aware that a pamphlet had issued in which this practice had been made a ground of charge against the office, that instant he had applied to the directors and besought them to cause matters with respect to these deeds to be put in a proper position. A form of declaration was then drawn up by the solicitor, which in express terms set forth that the money had been advanced in his name in trust for the society, and to that declaration he had affixed his signature. (Hear, hear.) But some short time after it had been contended by parties that, in case of his death, the security might be prejudiced, upon which he had told them to do whatever might be deemed necessary to effect the complete dislocation of his name from the deeds. Transfers were then engrossed on the deeds, to which he instantly put his name. In reference to the bonus of 1829, he would beg to direct the attention of the meeting to the fact that the directors had been guided in the matter by the statements of the attorney. A public meeting of the society had been called, at which every member of the institution might have attended. At that meeting the report of the position of the office, together with its liabilities, which had been made by the proper officer to the directors, had been read to the assured. The statement put forth in that document had been deemed satisfactory. Mr. Pontifex had stated that the office was in bad odour. Let the meeting test the fact by the business the office had for some time been doing. In 1836 the number of lives insured had been 6,640, and in the course of that year 479 had been added, making a total of 7,118. The deaths during that year had been 170, whilst the number of discontinued policies had been 77, and the number purchased by the office 35. In 1837, which he might call the first year of the disturbances, the new lives insured were as many as 494, being 16 more than in 1836; and in 1838 the number of new policies had been no less than 503. So that the total number of lives insured in the office was then 7,479. Now he did think that when the statement he had just made had gone forth to the world, it would at once have the effect of removing, even from the mind of Mr. Pontifex himself, any impression that the office was in bad odour. In the report of the London committee, which by the way, it must be observed, had been repudiated at the meeting held in London, on Friday, the office had been accused, amongst other things, of having kept the accounts in a slovenly and disreputable manner. Now, no such words, or words that implied such a meaning, were to be found in the report of the examiners. Now, when the accountant had gone through the accounts, he had differed in various points of detail in the classifications, but that difference had had no reference to value, for whilst the total, as shown by the accounts of the office, was 5,490,000l., the accounts had produced a total of 5,540,000l. But against that apparent increase of 50,000l. of liability must be placed the increase in the premiums of 20,000l. a year; for whilst by the office return the premiums amounted to 171,000l., by the examiners' report they appeared to be 173,000l., and that increase of 2000l. per annum was equivalent to the 50,000l. The accountant and his clerks had been occupied six months in going into the investigation of the receipts and disbursements of the office during the long period of 28 years, in the course of which several millions had passed through the office, and he had been unable to discover any instance where every shilling had not been duly entered and accounted for. He would take that opportunity of saying, that in future, with regard to the mode of carrying out the conduct of the affairs of the society, he should be perfectly willing to bend his practice to the suggestions of the examiners. It had been made a charge against him that he had had the exclusive influence over the money of the office, and that the money had been placed by him in a joint-stock bank in Norwich, and furthermore, that he had permitted a balance amounting to 40,000l. to accrue. The short history of the matter was simply this:—On the 27th of February, 1836, the proprietors of the joint-stock bank had declined business, and, therefore, the balances due to all the customers of the house, which had been secured to them by an opulent directory and proprietary, were, down to that day, made up in the books of the concern, and transferred on the following Monday to another bank, the East of England Bank, which was under the management of an increased directory and proprietary, and backed by an additional proportion of opulence.

Mr. STEWARD, one of the examiners, here rose and said the statement which had just been made by Mr. Bignold was perfectly correct.

Mr. BIGNOLD, after alluding to the other charges brought against him, said he had been treated by the examiners throughout the investigation with the greatest courtesy and kindness. But before he sat down he would take the opportunity of contradicting one of the statements which had been put forth in the report of the so-called London committee. That report had stated that the society had advanced on mortgages the amount of 250,000l. in Brighton alone. He could assert that it was not one-fifth of that sum.

Mr. WALLER condemned the conduct which had been pursued by the London committee.

Mr. OLIVER, at considerable length, commented on the mismanagement of the authorities at the Norwich office, and on the contents of the examiners' report.

Mr. PAYNTER said, it had not been his intention to offer himself to the meeting, but, having been personally alluded to, he felt that he ought to do so. In the first place, then, he begged to congratulate the meeting on the happy state of prosperity in which he was now ready to admit the affairs of the society were. He was free to confess, that what he had heard that day had satisfied him that such was the case. At the meeting of 1837 he had declared that he would not turn to the right or to the left until the state of the accounts had been thoroughly investigated, and until the assured had been made acquainted with the exact position in which they stood. That pledge he had redeemed. He trusted that the differences which had arisen amongst them would for the future be, as it were, a bygone in memory.

Mr. Alderman FAREBROTHER then went into a minute and extremely satisfactory history of the course of proceedings which had been adopted by the examiners in the task they had recently concluded. With regard to himself, he was at a loss to guess how it had chanced that he should have been held up to public odium by one of the journals issuing from that city. Fortunately, however, he cared not for the attacks, because he was proud to say he possessed the public confidence to an unlimited degree.

After some remarks from Sir R. Harvey, Mr. Paynter, Dr. Evans, Mr. Langshaw (who proposed a motion which was withdrawn), and several other gentlemen,

Mr. GODSON, M.P., addressed the meeting in a very eloquent and powerful speech; indeed, the hon. and learned gentleman was singularly happy. Want of room, however, prevents our giving more than a bare outline. He assailed the proceedings, as well as the views, of the London committee with the utmost vigour and effect. The hon. and learned gentleman took item by item of the charges, and explained and cleared away every doubt with which they had been enveloped by the London committee; and concluded, amid loud cheering, by calling on the meeting to pass the resolution.

The Rev. Mr. Barker, Mr. Rogers, Mr. Steward, and Mr. Woodruff, having severally addressed the meeting, the resolution was put and carried, with seven dissentients only.

Mr. ROGERS then moved, and Mr. FULLER seconded, the following resolution, which was, after a few observations, unanimously agreed to:—

That it is the opinion of this meeting that the present deed of settlement, framed at its establishment in 1808, is inadequate to its present extensive concerns; and that a joint committee, consisting of four directors and four assured—namely, Messrs. Paynter, Farebrother, C. Evans, and T. Steward, do prepare a new code for the future government of the society, and that they be requested to lay the principles upon which they shall agree it shall be formed before Mr. Brodie and Mr. Tyrrell, and in case of those gentlemen disagreeing, to refer all points in dispute to Mr. Duval, whose decision shall be final.

Mr. R. WOODHOUSE, M.P., in a complimentary speech, moved, "That Mr. Alderman Farebrother and Mr. T. Steward be requested to accept the office of directors." Mr. WARD seconded the motion, which being responded to in the affirmative by the two hon. gentlemen, was carried, and amidst acclamations they were declared to have been elected as members of the board.

Mr. WOODRUFF then moved a vote of thanks to the venerable chairman. Mr. GODSON seconded the resolution, which having been carried, accompanied with great applause, the CHAIRMAN acknowledged the compliment, and the meeting separated.

LAW INTELLIGENCE.

IMPORTANT DECISION RESPECTING JOINT-STOCK BANKS.

COURT OF REVIEW—NOV. 23.

EX PARTE CHARLES MARSTON, IN RE WILLIAM MARSTON, A BANKRUPT; JOHN WHITTENBURY, RESPONDENT.

This petition prayed that a proof of debt by the respondent, under a fiat, dated August 19, 1839, might be expunged, and that a substitution of assignee might take place, the choice having been turned by the debt now impeached. The bankrupt was a member of the Imperial Bank of England, the Northern and Central Bank of England, and the North of England Bank, all established under the Joint-Stock Banking Act, 7 Geo. IV., c. 46. The bankrupt was one of the registered officers of the Imperial Bank, which stopped payment in April last, previous to which he had paid up all the instalments due on his shares. At a meeting of creditors under this fiat, Mr. Whittenbury attended to prove for 3047l., on a debt due jointly by the bankrupt and other members of the banking firm on certain bills of exchange which had been dishonoured. The proof was admitted by the commissioners, for the purpose of enabling the claimant to vote in the choice of assignees, and exercise a control over the bankrupt's certificate.

Messrs. ANDERSON and BACON, in support of the petition, urged the following points:—Firstly, that no proof can be established by a creditor of a joint-stock bank as a company until judgment shall have been recovered under the powers given by the Act against the public registered officers. Secondly, Whether such a creditor asserting a right to prove under the 62d section of the Bankruptcy Act is not affected by the dissolution of the firm in consequence of the bankruptcy of members. Thirdly, That the affidavit of debt in this case was not only ineffective, but insufficient to support the debt, it affording no evidence of notice of dishonour on the bills of exchange. Fourthly, That there having been a previous fiat against a member of the company, a second fiat ought to have gone to the same commissioners as the first, with assignment to the same assignees.

Messrs. Swanson and Archbold, for the respondents, were not heard. Sir J. CROSS said, this was one among many cases affording melancholy proof of the danger of men engaged in commerce entering into joint-stock banking companies. They were likely to be all called upon for the debts of the company, and their certificates endangered thereby in the event of bankruptcy. The ancient law of the land afforded protection, but it had been broken down, and a torrent of unforeseen evils let in. As regarded the case before the Court, it left nothing in doubt. He (Sir J. Cross) was of opinion that joint-stock banking companies had a right under the 62d section, giving the public officer affecting the whole company, and banking companies under the statute holding parallel rights with ordinary firms. The respondent had only an ultimate interest in the effects in the event of a surplus; but had an immediate right under the 62d section to come in on the choice of assignees and question of certificate. It was contended, that the operation of this section applied only to subsisting partnerships; and that the authority of the Vice-Chancellor's decision in "Morris v. Desormaux" was fatal to the respondent's case. But this banking company was a subsisting partnership for all the purposes of his creditor, the Act having provided for perpetuity, notwithstanding change of partners. Death, bankruptcy, or sale of shares, did not affect the identity of the partnership. There was nothing which could avail the petitioner in the 62d section; and there was no ground for expunging the proof thereunder. The allegation that the proof had been received on a defective deposition was immaterial; no creditor had a right to say a commission had admitted a proof on defective evidence, unless he succeeded in negating the right to prove. The petitioner had made out no title for expunging the proof, or disturbing the choice of assignees.

Sir G. ROSE concurred. Both the petitions in this matter might be disposed of at once. An order for the delivery of the proceedings, on the application of the assignees, followed as a matter of course, and must have been made with costs, if costs had been prayed. There could be no defence against *de facto* assignees demanding possession of the proceedings. The other petition, which had been discussed, must be dismissed with costs.

LATE STOCKTON AND DARLINGTON RAILWAY ACCIDENT.

RAIL COURT—NOV. 25.

THE QUEEN v. APPLETON.—Mr. ADDISON stated that, in this case, the inquiry upon the death of Grey, the cart-driver, in Yorkshire, had been brought up into Court, and he now moved for a rule to show cause why it should not be quashed. There were, amongst many grounds, three, that were quite sufficient to support this application: first, that in describing the ownership of the steam-engine, by which the death had been effected, there had been a great want of distinctness. The expressions used were, that it was of the property of the Railway Company, or their assigns. Now, who the assigns of the company might be was wholly a mystery.

Mr. Justice LITTLEDALE.—It might be you or me. Mr. ADDISON continued, that the second ground was, the crime of felony was not clearly attributed to the accused, Appleton. He was said to have been carelessly driving, and that Grey had been feloniously thrown down and killed. It might have so happened that this had been truly stated without Appleton being the person on whom the charge of feloniously throwing down the deceased should fall. He might have been driving carelessly, while another party might have forced Grey upon the road. This showed the want of due precision in the indictment. The third ground was, that some of the inquiries were marked, and their signatures had not been attested as they should have been. See the case of the "King v. Bird," 3 Carrington and Payson, p. 692.

His LORDSHIP thought these grounds sufficient to obtain the rule to show cause asked for.

LONDON AND BLACKWALL RAILWAY COMPANY.

VICE-CHANCELLOR'S COURT—NOV. 26.

WARRINGTON AND OTHERS v. THE COMPANY.—Mr. JACOB (with Mr. Bagg) moved to dissolve an injunction granted *ex parte*, by which the London and Blackwall Railway Company were restrained from proceeding with the excavation now carried out by them along the side of the plaintiff's premises, situated in Worley-cum, Minorca, in such a way as to endanger the safety of the property, or the lives of the inmates. The affidavits of the company

disclosed many circumstances which had occurred in the course of the negotiation between the parties, and in the progress of the works, which were concealed from the knowledge of the Court when the application *ex parte* was made, from which it was now contended the injunction ought never to have been granted. The company, it appeared, had purchased the house No. 6, adjoining the two houses of the plaintiff, which were alleged to be in danger, and after pulling it down, had shored up the adjoining house to such an extent as they considered sufficient for the protection of the property. When it was represented to the company that the house was still considered to be in danger, they made an offer to the plaintiff's surveyor effectually to shore up the whole of their own expense, and remove all possible apprehension of insecurity, and no mention whatever was made to the Court of this offer. The learned counsel also submitted, that to entitle the plaintiff to the interference of the Court, it must be shown that his property was entitled in law to the support of the house removed, or that the works carried on by the company were so negligent and inefficient as to endanger it. These points the plaintiff's affidavits entirely failed to show.

Mr. K. BAUCE and Mr. G. RUSSELL were heard in support of the injunction.

The VICE-CHANCELLOR said, he should look into the affidavits before he gave his opinion; but, as he understood them at present, they represented that if the works remained as they now were, and the weather should be wet, the very danger would be accomplished which the plaintiff feared. He thought, therefore, notwithstanding the injunction, the works ought, in the mean time, to be suffered to proceed to prevent this danger, but without prejudice to the question of right he had to decide.

THE NORTHERN AND CENTRAL BANK.

COURT OF QUEEN'S BENCH—NOV. 27.

HUMBLE v. MITCHELL.—In this case an action had been brought against the defendant for refusing to transfer 100 shares of the Northern and Central Bank, under a contract which he had made with the plaintiff. The case was tried at Liverpool before Mr. Justice Coleridge, and a verdict was obtained by the plaintiff for 1000 damages, subject to a motion to set it aside and enter a verdict for the defendant on a set of the pleadings, by which the question was raised whether a contract for a sale of shares in a bank ought not to be made in writing under the Statute of Frauds. A rule had been since obtained by Mr. Alexander for that purpose.

Mr. CRESSWELL now appeared to show cause against the rule, and contended that bank shares were not "wares, goods, or merchandise," and, therefore, could not be taken to be within the meaning of the statute.

Mr. ALEXANDER, in support of the rule, argued, that as bank shares are continually subject to sale and purchase, the statute ought to be so interpreted as to bring them under its provisions.

Lord DENMAN said, there was no case precisely in point. The cases relating to the bankrupt laws were not authorities decisive of the point, because they went on the ground of reputed ownership. The Court, on the whole, were disposed to look upon the shares in question as choses in action, and, therefore, as things not capable of delivery, and not falling within the statute. Consequently, the want of a note in writing ought not to vitiate the contract, and on that point, therefore, the rule must be discharged. But there were other points upon which the Court entertained some doubts, and recommended the parties to consider the propriety of reducing the amount of damages.

THE GOLD-DUST ROBBERY.

CENTRAL CRIMINAL COURT—NOV. 27.

The expectation that the judgment of the Court upon the points of law raised in favour of the parties charged with the commission of the above robbery would be delivered this day, caused the Court to be filled long before the judges took their seats, and the subject appeared to create very great interest.—At a o'clock Mr. Baron Parke and Mr. Justice Mannequin took their seats upon the bench.

Mr. Baron Parke said, that the judges had not yet come to a decision upon the points of law raised by the prisoners' counsel, and in all probability the judgment would not be delivered this session.

LOCOMOTIVE AND RAILROAD ENGINES IN THE UNITED STATES.

In the *American Almanac* for 1840 we find a return which exhibits a total of 337 locomotive and railroad engines of an aggregate of 6720 horses' power, in the United States; and estimating thirteen engines of 200 horses' power for the states of New Hampshire, Vermont, Indiana, Missouri, and Illinois, and for Tennessee, Wisconsin, and Iowa, from which no returns were made, the total would be 350 locomotive and railway engines, of 6980 horses' power. "The first locomotive in the United States, it is believed, was in the State of Delaware, on the Newcastle Railroad; the second, in Maryland, on the Baltimore and Ohio Railroad; and the third, between New Orleans and Lake Pontchartrain, in the State of Louisiana. They had been tried in this country by Oliver Evans, as early as 1804, and in England as early as 1805; but not reduced to useful practice in the latter till 1811; for freight, and in 1830, for passengers and speed. One succeeded on a common road from London to Bath, in 1825." Only twenty-four "material accidents" are reported as having been ascertained to have occurred to locomotive engines in the United States, and four to "standing" or stationary engines. In the former twenty-seven persons were killed and ninety wounded; in the latter, two were killed and eight wounded. Of the twenty-four accidents to locomotive engines, five appear to have been from defects in the road, five from explosions (in two of which the water was too low in the boiler), five from collisions, five "thrown from the track," one "running off the track on running against a bridge," one "wheel broke," one "iron connecting rods broke," one "fire," and one "neglect of engineer."

NORTH MIDLAND RAILWAY.—The contracts for building the offices at Belper, South Wingfield, Chesterfield, and Ekeington stations, are at length advertised. We have, therefore, pretty good evidence that the works on this, one of the greatest arterial lines, are drawing to a close, so that, in connection with the Birmingham, Midland Counties, York, and North Midland, we shall, ere long, have a railway communication in a direct line northwards 200 miles; between the two most ancient and renowned cities in England—London and York. A man may then very well breakfast in London, and dine with his friend in York the same day; send a letter and receive an answer in sixteen or seventeen hours. And when the Great North of England to Newcastle is added, we shall have a continuous railway communication between the metropolis and Newcastle, near 300 miles, directly to the north, and be within 100 miles of Edinburgh. That we shall, ere many years elapse, be able to reach Newcastle from London in ten hours, there is but little doubt; and we shall probably see the time, and before many years, when a man may leave London after dinner, visit Edinburgh, transact his business, and return to town to dinner the next day.—*Derbyshire Courier*.—On Wednesday last the contracts for the Ekeington, Chesterfield, and South Wingfield stations were let to the following parties:—Ekeington, to Messrs. Smith and Brown, of Sheffield; Chesterfield, to Messrs. Leather and Waring; South Wingfield, to Mr. Radford, of Alfreton. Total amount, 70000l. The Belper contract is not yet let.—*Derbyshire Chronicle*.

CARLETON AND MARYPORT RAILWAY.—Mr. Stephenson has resigned his situation as engineer upon this railway. A meeting of the directors was, in consequence, held at Aspinwall on the 19th inst., when Mr. Blackmore, the engineer of the Newcastle and Carlisle Railway, was appointed to fill the vacant office. Our correspondent says there is great reason to complain of the delays which have occurred in the progress of the line; with what justice we have not the means of knowing. One thing is certain, however, that the portion of the line which was promised to be opened in September or October, will not be finished before January or February. Still, in undertakings like this, great allowances should be made for difficulties which the utmost foresight and care cannot anticipate; and delays and disappointments frequently occur, for which neither directors nor engineers can fairly be held responsible.—*Carlisle Journal*.

RAILROAD FROM BRUSSELS TO MALINES.—The number of persons who usually passed by the road between Brussels and Antwerp was 75,000 in the year; but since the railroad has been opened from the former place to Malines, it has increased to 500,000; and since it was carried all through to Antwerp, the number has extended a million. The opening of a branch from Malines to Termonde appears to have added 200,000 to the latter number; so that the passenger traffic of that railroad, superseding a road traffic of only 75,000 persons, now amounts to 1,200,000. The number of passengers who lately went on a Sunday by the railroad from Paris to St. Cloud, according to the returns of the control officers, amounted to 13,955; and of those to St. Germain, 9639.

DAIRY IRON-WORKS.—Upwards of 10,000 tons of iron-works were landed at Antwerp last week, intended for the new iron-works now in the course of erection, with every prospect of success, on the estate of Colonel Blair, near Dairly.—*Scotsman*.

MINE ACCIDENT.—A serious accident happened, last week, to one of the workmen at Wheel Harmony Mine. The poor fellow was ascending the engine-shaft, when the men at the capstan were raising the connection rod; and his body was compressed into a space of six inches, between the

THE PATENT SAFETY FUSE

OPERATIONS.—This article affords the safest, cheapest, and most expeditious mode of effecting this very hazardous operation. From many testimonies to its usefulness with which the Manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c. &c.:

"I am very glad to hear that my recommendations have been of any service to you. I have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY,

NOTICES TO CORRESPONDENTS.

In answer to Mr. J. N. Miers's two queries, we have merely to reply in the affirmative as regards both.

"T. L."—The papers have been regularly forwarded from our office, addressed, as requested—"T. L., Post-Office, Llanelly," from the time of the first order. We hope to hear again from our correspondent shortly.

THE "MINING REVIEW."

It having been determined to offer premiums for ORIGINAL PAPERS on the several subjects treated on in the MINING REVIEW, to appear in that publication, we have to announce that a premium of TEN GUINEAS will be presented to the author of the most approved paper

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ON IRON.

historically, chemically, and metallurgically considered, as well as in the economical manipulation or smelting of the ores, and its general application, with the comparative results arising from the processes observed in the various districts of England, Scotland, and Wales—stating the quantity and nature of materials used, the respective modes of extraction, the various metallurgical treatments to which they are subjected, and the results attendant thereon. The several forms of furnace, application of hot or cold blast, quality and description of the coal, and nature of the ores, and the quantities used, being defined. To appear on the 1st January next. Those papers which are not approved will be returned to the respective authors; the property of that obtaining the premium being vested in the proprietor of the MINING JOURNAL. All papers should be furnished not later than the 1st December next. Such papers as may require illustrations must be accompanied by drawings.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, NOVEMBER 30, 1839.

LONDON AND CROYDON.

We last week remarked upon the successful application of anthracite coal to the purposes of steam navigation, and, in the absence of any very pressing subject for comment at the present moment, we may briefly recur to the interesting experiments lately made upon this valuable, but hitherto much-neglected and ill-appreciated mineral. On the great extent to which the variety of coal, generally known as the "anthracite" or "stone coal," is known to prevail in many parts of the world, we need scarcely make any remark, as the fact must be familiar to most of our readers—in the great mineral field of South Wales it extends over a large space, especially in the western part of the district; it is found in many parts of Ireland; and in the coal-fields of the United States it is developed to a very considerable extent, more so, we believe, than in any of the coal districts of Europe.

THE FUNDS

CITY, FRIDAY EVENING.
Consols closed at 90 $\frac{1}{2}$ money, and 91 $\frac{1}{2}$ for account. Three-and-a-Half per Cent. Reduced Annuities 97 $\frac{1}{2}$ $\frac{1}{2}$, and the New Three-and-a-Half per Cents 99 $\frac{1}{2}$. Bank Stock 178 money. India Stock 251 $\frac{1}{2}$ 252 money. Exchequer Bills 5 2 dis.

18. *Journal of the American Medical Association*, 1967, 201: 1001-1002.

Spanish Bonds, with May Coupons, 24½. Passive 6½, and Deferred 10½ 11. Portuguese New Fives 31½ ¾, Three per Cent 21½ 22. Brazilian Bonds 70½ 71; Colombian 29½ ¾; and Mexican Six per Cent 29½. French Five per Cent. Rentes 111½, with the Exchange at 25½. 40c, Dutch Two-and-a-Half per Cent 52½ ¾, and the Old Five per Cent 98½ money. The New Loan 96.

LATEST INTELLIGENCE

Brighton Railway Shares 14½ dis. Birmingham 50 51½ pm. South-Western 38½ ¼ each.

The following notice was posted in the cashier's-office on Thursday afternoon :—

LATEST INTELLIGENCE.

Saturday Morning, Twelve o'clock.

TAURO, NOV. 28.—Average standard, 106 <i>l</i> . 1 <i>s</i> .—Average produce,	7½.—Quantity of fine copper, 212 tons 12 cwt <i>s</i> .—Amount of money,
14,776 <i>l</i> . 0 <i>s</i> . 6 <i>d</i> .—Average standard of last sale, 104 <i>l</i> . 17 <i>s</i> .—Produce, 7½.	

CITY, TWELVE O'CLOCK.—Consols, Money, 90½; Account, 91½; New 3½ per Cents., 98½ 9; Three per Cents Reduced, 89½ 3; 3½ per Cents Reduced 97½ 3; Long Annuities, 13 3; Bank Stock, 178 9; East India Stock, 251½ 2½; Excheq. by Bills, 4 2 dis.—Birmingham and Derby Railway, 25 23 dis.; Blackwall, 4½ 4 dis.; Brighton, 16½ 16 dis.; Bristol and Exeter, 30 28 dis.; Eastern Counties, 13 12 dis.; Greenwich, 12 13 per share; Great Western, 12 11 dis.; Gloucester and Birmingham, 30 28 dis.; London and Birmingham, 50 52 pm.; New, 16½ 17½ pm.; Manchester and Birmingham, 12 11 dis.; Manchester and Leeds, 6 8 pm.; North Midland, 9 8 dis.; South-Western, 38 9 per share; York and North Midland, 6 8 pm.—London and Westminster

Bank, $\frac{1}{2}$ p.m.; Colonial Bank, $3\frac{3}{4}$ p.m.; London Joint-Stock, $1\frac{1}{2}$ p.m.
PRICES OF SHARES IN BIRMINGHAM.—Birmingham and Midland
 Railway, 44*l.* 10*s.*; Town and District, 7*l.* 10*s.*—London and Birmingham
 Railway, 14*l.* 10*s.*; ditto, quarter shares, 2*l.* 15*s.*; ditto 32*l.* shares,
 10*l.* 10*s.*; Grand Junction 20*l.*; Manchester and Birmingham Extension,
 4*l.*; Manchester and Birmingham, 15*l.*; Great Western, 55*l.*; ditto,
 half shares (15*l.* paid), 10*l.*; Birmingham and Gloucester, 30*l.* 10*s.*;
 Midland Counties, 50*l.*; North Midland, 77*l.*; Leeds and Manchester,
 56*l.*; ditto half shares, 18*l.* 10*s.*; London and South-Western, 38*l.* 10*s.*;
 London and Croydon, 8*l.* 10*s.*—Old Birmingham Canal, 220*l.*; Stour-
 bridge, 400*l.*; Worcester and Birmingham 68*l.*—Birmingham Plate and
 Crown Glass, 4*l.* 2*s.* 6*d.*—General Steam Navigation, 25*l.* 2*s.* 6*d.*—*Mid-
 land Counties Herald.*

PRICES OF SHARES AT LIVERPOOL.—Chester and Crewe Junction Railway, 24*l*. 15*s*.; Eastern Counties, 5*l*. 10*s*.; Grand Junction, 20*l*.; Great Western, 55*l*.; ditto, new shares, 5*l*. 12*s*. 6*d*.; London and Birmingham new shares, 30*l*.; London and Brighton, 14*l*. 15*s*.; Manchester, Bolton, and Bury Canal and Railway, 33*l*. 5*s*.—Liverpool Borough Bank, 4*l*. 10*s*.; North and South Wales, 6*l*. 7*s*. 6*d*.—Liverpool and Harring-

EXPORTATION OF THE PRECIOUS METALS.—The exportation of the precious metals from the port of London to foreign ports for the week ending the 21st inst. was as follows:—Silver coin to Hamburgh, 254,000 s.; Jamaica, 2554 oz.—Gold bars to Hamburgh, 429 oz.

MICROSCOPIC GEOLOGY.—Professor Ehrenberg, already so justly famed for his microscopic discoveries in the animal and vegetable kingdoms, has recently added fresh lustre to his name by the pursuit of geological science.

He has discovered that large masses of rock, and even whole strata of the earth are entirely composed of the remains of microscopic animals. The soft internal parts of these animalcules were, during life, covered with a pigment or case, composed of silica or diat; these earthy integuments

have hitherto resisted decomposition, and now, in countless myriads, compose large portions of the globe. The cases are for the most part cylindrical, with transverse markings, and so hard, that the rocks composed of them are used as polishing stone. Of about eighty species of fossil infusoria which have been discovered in various strata, a out one-half are identical with those which still exist in the waters; so that these classes

invisible creatures have a durability which has been denied to larger forms of life. Professor Ehrenburg has discovered that these microscopic animals exist at present in such abundance, under favourable circumstances, that there is no difficulty in accounting for the presence of the enormous masses of their fossil remains. In the public garden at Berlin.

workmen were employed for several days in removing wheelbarrows full of material which consisted entirely of the same. Ehrenberg has also succeeded in producing from masses of the living animals, tripoli and polishing slate, similar to the rocks from which he had originally obtained the remains.

He has added another to the numerous proofs of the correctness of the modern theories of geology, by showing that, while the microscopic contents of the more recent strata are all fresh-water infusoria, those of the older strata are animals which must, or at least could, have lived in the ocean. These discoveries were the result of great labour. Professor Ehrenburg

and made a study of recent infusorial animalcules, during many years; and when his attention was drawn to the subject of fossil infusoria by M. Scher, in 1836, he was able to recognise at once many species, which, in living state, had been long familiar to him. Specimens of the rocks to

which we have above alluded, and of the infusoria which compose them, at present to be found in most of the mineralogical collections of Great Britain. — *The European*,

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MINING CORRESPONDENCE.

ENGLISH MINES.

HOLMBUSH MINING COMPANY.

Nov. 25.—In driving west of the engine-shaft, at the 100 fathom level, the lode is unaltered. In driving west of the engine-shaft, at the eighty fathom level, the lode is still a good course of ore, twenty inches wide, and worth about four tons per fathom. In this level, driving east of Suell's winze, the lode is also a rich course of ore, two feet wide, and worth from five to six tons per fathom. In driving the seventy fathom level west of Chynoweth's winze the lode still holds good, is two feet wide, and worth about 25l. per fathom. In the winze sinking below this level no lode has been taken down during the past week. The lode in the stopes, in the back of this level, is improving; is at present eighteen inches wide, worth about four tons of ore per fathom, and has every appearance of becoming shortly more productive. In the sixty-two fathom level west we have not as yet discovered the lode, but are now daily expecting to meet with it. In this level, driving east of the engine-shaft, the lode still continues; is about two feet wide, of muddle, spar, jack, and copper ore, with a promising appearance. The lode in the stopes, in the back of this level, still continues an excellent course of ore, two and a half feet wide, and worth about eight tons of good ore per fathom. The tribute pitches are still productive. The parcel of ore weighed at Calstock-quay, on Friday and Saturday last, was 175 tons 10cwt. 1qr. dry ore, which will be sampled this instant. F. PHILLIPS.

ST. HILARY MINING COMPANY.

Nov. 23.—In the eighty fathom level west the lode is nine inches wide, good ore, and ground still very good, at 3l. per fathom. In the eighty fathom level east we have had a very kindly lode, and good ground for the last two fathoms: to-day the lode is disordered, and three feet wide, composed of spar and leaders or branches of ore. In the seventy fathom level east the lode is fifteen inches wide, producing one ton of ore per fathom. In the seventy fathom level west the lode is one foot wide, and ore throughout. The winze, bottom of seventy fathom level, is suspended, in consequence of so much water. I have put the men in the western shaft, but there is no alteration. The branches are come together in the winze; the lode is ten inches wide, and rich yellow ore. We have cut another branch in the cross cut south, at the sixty fathom level, but we do not consider it is the south lode. There is a quantity of water issuing from the ground to the south of this branch. C. H. RICHARDS.

TRELEIGH CONSOLS MINING COMPANY.

Nov. 23.—At Christoe we have set the sumpmen to sink under the fifty fathom level, at 14l. per fathom, the water is increased, and this sink of ten fathoms is as much as we can calculate on doing with the present pitwork and rods. The fifty west is a fine-looking lode, and promises to be a permanent improvement; it is now worth 10l. per fathom. At this level east the lode is poor, being not yet clear of the slide. The forty is also very promising; the lode is regular, three and a half feet wide, and producing good ore. The pitches in this part are much the same. At Shanger the twenty fathom level, on the south lode, is a little improved, but the level on the north lode is poor. The pitches in this part are but little altered. W. SINCOCK.

WEST WHEAL JEWEL MINING ASSOCIATION.

Nov. 25.—At Buckingham's perpendicular shaft, sinking below the forty-two fathom level, the ground is still favourable. The forty-two east, on the south branch, continues worth 5l. per fathom for ore. The winze is now holed to this level: this is a desirable object accomplished, both to the tributers and the men driving the end; they have now good air, and can drive the level at less cost. The thirty west, on the south lode, is not taken down since our last report. In sinking the south adit shaft, below the thirty fathom level, the ground is favourable. The twelve fathom level west, on the south lode, is worth 10l. per fathom, and ground favourable. The tributers are working steadily, and we hope they are getting wages. Our sampling on Wednesday last was eighty-seven tons. S. LEAN.

UNITED HILLS MINING COMPANY.

Nov. 26.—In driving east in the adit level the lode is six feet wide, producing but little ore, although of a kindly appearance. In the ten fathom level no alteration. In the twenty-seven fathom level the lode is two feet wide, with stones of ore. In the thirty-six fathom level we have cut a lode in driving north, but cannot inform you of the quality or size yet, as we have only now cut the south wall, west of Turton's lode, three feet wide, coarse in quality. The stopes continue to produce a fair quantity of ore. In the forty fathom level, the lode in driving east of east diagonal shaft is four feet wide, one foot of good ore. West of diagonal shaft two feet of the lode is very good ore. West of Webber's winze two and a half feet of the lode is good for ore. In the fifty fathom level, in driving east of Williams' shaft, the lode is two feet wide, not producing so much ore as when last reported. West of Williams' shaft the lode is three feet wide, very good for ore. C. PENROSE.

TAMAR SILVER-LEAD MINING COMPANY.

Nov. 25.—In driving north, at the 125 fathom level, the lode is from a foot to a foot and a half wide, and producing some good work. In driving south, at the same level, the lode is one foot and a half big, and yielding ore work. In going south, at the 115 fathom level, the lode is small and ore. In the south end, at the ninety-five fathom level, the lode is about a foot and a half in width, and producing some very good work. In driving south, at the seventy-five fathom level, the lode is about the same size as stated last week, and still yields some good work. The lode in the other levels remains precisely the same as last reported. The tributers are working diligently, and we hope are getting wages. We sampled at these mines, on Thursday last, a parcel of silver-lead ore, computed forty-five tons, for sale on the usual conditions, on Saturday, the 30th inst., and we have about two and a half tons halvan ore, which will not be sampled till next month. MARK JAMES.

TINCROFT MINING COMPANY.

Nov. 26.—I beg to inform you that we have this day sampled 190 tons of copper ore, which I expect will fetch about 320l. We shall deliver to the smelting houses, by Saturday next, twenty tons of black tin, and nineteen tons of which were sold yesterday, per ticket, but I very much regret, on account of the low price, it has fetched; ten months since the same quality tin sold 8l. per ton higher. With respect to the state of the mine, I am glad to say our ends in the eastern part of the mine are, on the whole, looking better than last week, and also three of our copper ore pitches in the eastern-most part of the mine, i. e. in the back of the ninety, back of the eighty-one, and bottom of the seventy two. No alteration has taken place in the engine-shaft, nor the rise in the back of the 142, the sumpmen being engaged fixing a single-bob at the 137, and will for some days longer be engaged fixing plunger-lift, &c. Other places, both on tribute and pitwork, remain stationary since my last. W. PAUL.

REDMOOR CONSOLIDATED MINING COMPANY.

Nov. 25.—Since my report of the 16th inst., the sumpmen have been performing the necessary work to be done in Johnson's Flat-roof engine-shaft, from the seventy to the eighty fathom levels, such as named in my last, casing, lining, &c.; and to complete the whole of this work it will yet occupy the men some three or four days longer before we shall commence driving on the course of the lead lode, at the eighty fathom level. In driving north, at the seventy fathom level, we find the lode to be about four inches in width, and rich work for silver lead ore. The lode in the north end, at the sixty fathom level, is from six to eight inches in width, and saving work for lead ore. From the tribute department nothing new can be reported. At the north mine, the cross-cut going south of the engine-shaft, at the thirty fathom level, is extended six fathoms three feet, and ground favourable. In driving east, on Trelease's lode, at this level, the appearance is much the same (poor). The men working on tribute, in the back of the twenty fathom level, on the course of the copper lode, have been lately breaking some good work for copper ore, but at present the lode is poor; however, from the appearance of the lode here, we still entertain a hope of seeing it far more productive at a deeper level. S. HARPER.

CORNUBIAN MINE.

Chicerton, Nov. 26.—The fifty fathom level west, on Chiverton lode, is looking kindly, with small portion of lead in the lode. In the fifty fathom level cross-cut south, we have not cut the lode as yet. In the forty fathom level west the lode is poor at present. The pitches in the back of the forty fathom level are looking well. The thirty-two fathom level east is poor at this time. We have sampled about forty-nine tons of lead, and we shall send a sample this day to Mr. Somers, and one to Mr. Bartley's assayer, and Mr. Mitchell's sampler has taken one for him; and it is to be sold on Thursday, December 5.—We have now dressed for a new parcel 5 tons, undressed 10 tons, and broke underground 5 tons. J. BORLAKE.

TREFOIL MINING COMPANY.

Nov. 25.—The engine-shaft is down to the thirty fathom level, where the sumpmen will commence immediately to excavate for a pit, and in order to intersect the lode. The lode in the twenty fathom east is from ten to fifteen inches wide, composed of lead and muddle, in soft hills. The lode in the twenty fathom level west is from six to eight inches big, producing saving work. We have intersected another side in this end, which has heaved the lode about its width, which is a favourable indication. The lode in the ten fathom level east is from twelve to eighteen inches wide, composed of fine sugary spar, with spots of ore. The lode in the ten west is small and unproductive at present; we had in the west some native or malleable copper ore from this end. We have let a rise in the back of the twenty fathom level east, which we expect will be productive of ore, and lay open the ground for tributing. On the whole the mine appears much the same. As soon as the

plat is laid open at the thirty fathom level we shall be in a position to let two or three pitches at the twenty fathom level, which we could not do at present without great inconvenience. Our pitches are all let for one month, on the condition that the adventurers dress, divide, weigh, and sample all ore, for which the tributers are to pay the adventurers 10s. per ton. The length of ore ground in the twenty fathom level is about forty-five fathoms, and about ten fathoms in the ten fathom level. J. BRAY.

FOREIGN MINES.

UNITED MEXICAN MINING ASSOCIATION.

Guanajuato, August 23.—Mine of Rayas.—The usual monthly report by Mr. G. R. Glennie is not transmitted herewith; and for which, I have to beg the indulgence of the court, in consequence of his temporary absence from Guanajuato, for the benefit of his health, which had been very indifferent for some months of late; as, however, there is little or no novelty to notice in the detail of operations at the mine, since his preceding report, the information usually supplied in my dispatches to the court will, I believe, be found ample enough on the present occasion, with a few additions.

Purisima.—The pit of San Antonio, and end of Anconito, continue in very good ore, while those of San Hermion and Santa Margarita, and cross-cut of Concordia, are nearly unproductive, but continued in the expectation of meeting better metals. Sixteen sets of barmen by day, and fourteen by night, are employed in these points.

San Cayetano.—The several workings therein, with the exception of the cross-cut of San Pablo, are in good produce, and likely to continue so, for some time to come. Twenty-eight sets of barmen by day, and the same number by night, are employed in them.

San Pio continues as productive as for some time past, and employs fourteen sets of barmen by day, and as many by night.

San Miguel.—The additional barmen, nine sets, placed here some weeks ago, having failed to produce any favourable result, either as to the discovery of new ore, or in equalising the returns with the increase of expense, they have been removed to San Cayetano, leaving only nine sets by day, the original number, to extract such produce as will cover its expenses.

Ore sent to the hacienda of Barrera, since Mr. Glennie's last report—that is, from 13th July to 17th August, 39154 cargas.

Ores on hand at the Mine, on the 17th instant.

Picked Cargas 1250

Unpicked " 705—1004

There have been, since the aforementioned date of the 18th July, five sales of ores on joint account with buscones, amounting to \$21,754 1, the half of which—say \$10,877 05, belongs to the mine, but only three of them have taken place since the date of my last dispatch, giving the gross amount of \$12,400 1, or \$4133 3 weekly, which is about \$500 less than the preceding average, and attributable to the circumstance of two feast days having intervened, and not to the quantity or quality of the returns. The same cause has affected the produce of picked ores, corresponding to the same three weeks, from the 27th ult. to 17th inst., which gives a weekly average of 677 cargas, while the preceding one gave 725. The general results, however, of operations during the said period, are proportionately better, inasmuch, as with the smaller amount of sales with buscones, and a reduced average of picked ores from the other workings, the estimated profit, over and above all expenses at the mine and hacienda, is still about \$2000 per week, the amount mentioned in my letter of the 29th ult., in reference to that date. The "plata de ley" of Rayas, now confined to the ores reduced at the hacienda of Barrera, and extracted from Purisima, San Cayetano, and San Miguel, is becoming gradually less rich in solid gold, but the gold being spread over a larger surface, and more intermixed with silver, the "asiento," or deposit of amalgam of both metals in the arrastres, has increased in the same ratio, which addition equalises the more concentrated form, in which the gold was found previously to this variation, and exemplified in a parcel received last week from Barrera of 1000 marcos, which averaging only 165 grains of gold to the marc, yet, gave so large a quantity of gold and silver intermixed (compared with former results), as to make it equivalent to a standard of nearly 600 grains of gold to the marc, or a shade better than the rich produce of preceding parcels.

Haciendas.—Those of Dolores and San Matias are in full operation, in pursuance with the contracts respectively entered into with Senor Baranda, and Mr. Joaquin de Compos. Barrera is equally so employed on the ores of Rayas.

Sept. 9.—I have to report the return to his post of Mr. G. R. Glennie with improved health, having been much benefited by his late excursion, and relaxation from duty. The operations at the mine having gone on very steadily, and with less variation than usual, the general result of returns from thence, since the date of my last dispatch, is greater, and, therefore, more satisfactory than the period immediately preceding that date. The sales of ores, on joint account with buscones, have been three in number, and produced the gross amount of \$12,283 4. The produce of picked ores during the same period—that is, from the 24th ult. to the 7th inst., has been 3024, or 675 cargas per week, and of rather better quality than the preceding extraction. The estimated value of these, and the mine's share of the sales with buscones, show an excess of returns of about \$3500 weekly, over and above all expenses at the mine, and the reduction of the ores. The several workings of Purisima, San Cayetano, and San Miguel, show no material variation, worthy of notice here.

August 23.—Remittances.—The Tampico conducta left hence on the 3d inst., and was bearer of the \$52,500 in specie for account of the association, alluded to in my last dispatch. The agents there, Messrs. Jolly and Baker, have received instructions from me to ship the amount, less the usual charges, to the order of the chairman of the court, by first British packet, with the subsequent proviso—however, to retain therefrom, if required, the value of 100 flasks of quicksilver, about \$5000, should the terms which I have offered to them for a parcel in their hands prove acceptable. The funds will, I trust, reach Tampico in time for shipment by the present packet, for, having left San Louis Potosi on the 12th inst., they ought to reach the former to-morrow.

Sept. 9.—The funds, \$52,500, forwarded from hence by last month's conducta, reached Tampico on the 26th ult., and in ample time for shipment by the present packet. As the contemplated purchase of quicksilver has not been made there, the full amount of said sum, less the usual charges, will be shipped to the court by Messrs. Jolly and Baker. The next conducta for Tampico will leave hence in about a month, but I am not yet prepared to say what amount can be then spared from my ways and means as a remittance to the court, owing to the recent unusually heavy rains having delayed the tortas in the haciendas.

Statement showing the outlay and returns in respect of the mine of Rayas, from the 28th of April, 1838, to the week ending the 17th of August, 1839, and the value of ores on hand:—

Amount of realised surplus on 30th of June, as per accounts, \$63,072 7 6
Outlay from 30th June to 17th August, \$67,191 3 3
Returns during the same period 93,599 2 4—26,398 7 1

Excess of returns \$89,471 6 7

Value of Ores at Haciendas belonging to the Mine.

Hacienda of Dolores \$ 320 0 0

Hacienda of Barrera 50,954 0 0

At the mine 8,200 0 0—59,483 0 0

Total surplus \$148,954 6 7

Guanajuato, August 23. J. N. SHOGLERED.

REAL DEL MONTE MINING COMPANY.

Mineral del Monte, Sept. 9.—The furnaces for the extraction of quicksilver at the hacienda of Laguna were nearly completed, and fire would be applied to dry them in a few days. In the mean time the ores will be brought from the mine to the hacienda. I hope that an experiment upon their reduction will be made in the course of the present month. I regret that Captain Hosking cannot report any improvement in the vein in San Osofite mine. Captain Hosking has examined the veins of Durango and Idojoni, and ordered further trials to be made, which, while not expensive, will enable us to determine their worth. The natives say that they formerly produced quicksilver, which they extracted by earthen jars. I beg to forward the accounts of the amount of costs and returns for April and May, which I am glad to state, instead of a loss of \$3500 for the two months, as was estimated, there has been a profit of \$4321. The estimate of costs and returns for September show a deficiency of \$15,000, which is, however, enhanced by the amount of the invoice, per Pakenham, of \$8000, so that the real loss, I hope, in the month, taking into account only the consumption of stores, will be much less. In the Terreros district we have just communicated the San Felipe level east to the level driving towards it from the San Felipe winze, at the point of communication, the vein is large and productive, and will increase a little our raising of ores. In the sixty-eight vara level driving east, on the Japonia vein, and the winze sinking under the same, the prospects upon the whole continue favourable, with scarcely any variation. In the San Miguel lode, driving west of Terreros, there is a branch of pretty good argente ore.

BOLANOS MINING COMPANY.

Bolanos, August 17.—Since I had the pleasure of addressing you from this place, I have paid a hasty visit to Zentecan, in order to make several arrangements with Mr. Stein, particularly about Molinas and Puro Hien, who reports to me of the former of these mines, that, having made some assays of three ores, he considered it was worth while trying a little longer, to which I have assented, and particularly in consequence of re-encouraging news since Mr. Stein's return. Some of the assays of the common stuff, made in a rough way, have produced 3 per cent; should that be the average ley, and the ore raised amount to 400 or 500 cargas per week, the speculation would not

be a bad one, because the 3 per cent. will be equal to 9 lbs. per carga, which, taking quicksilver at the low price of \$120, would make the 9 lbs. equal to 10 cts. of silver per carga, which would be considered a good ley in a silver mine, where the expenses of reduction are double those of extracting the silver from the cinabar. As I shall, on my return, pay another visit to these mines, I shall be able to form a more correct opinion, and decide accordingly. In my last correspondence I expressed not a favourable opinion of Barranco, but at present, although without any great change in the mine, I am led to form a better idea of the bottoms, from the extraction of 700 cargas a week (one full week's work); the other, more important, is that in the south end of Taylor's level, in San Jose—we have already three quarters of a vara of good ores. You know the importance of this discovery, if it should continue; independent of this, some of the labores which we have opened in veins north of the shaft, are producing ores of good ley, although not very abundant. I have already expressed my opinion respecting making a trial of the northern mines at once. I hope you will approve of this step which I intend to make, by your permission, before my journey to Europe, in order to submit the result for the board's final resolution, which will be about the middle of January, by which time the fate of Barranco will be decided. Owing to the scarcity of good smiths we have been hindered very much in completing the machinery for the bellows of the smelting-house. I hope, nevertheless, that two air-furnaces, four blast-furnaces, and one refining furnace, will go to work the first week in September. The total expense of the erection of that establishment, deducting stock of materials, which have already been purchased, will amount to \$36,000. We have now in hand between 3000 or 4000 cargas of lead ores, besides 2000 cargas of silver ore from San Clemente, Bolanos, &c. The net produce of the lead ores (these ores could not be made available unless smelted by the economical process which we have introduced), and the saving of part of the Maquila, charged to San Clemente, for smelting their ores, will be enough to pay at least half of the costs of erecting the smelting establishments. The time required for the reduction of the above-mentioned quantity of ore will be about five or six months, and the silver expected to be produced about 20,000 marcs.

ORIGINAL CORRESPONDENCE.

IMPROVEMENTS IN THE MANUFACTURE OF IRON.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In your Mining Journal of last week a correspondent from Scotland claims a priority of three or four years in the use of oxide of manganese in the manufacturing of iron, in opposition to a new member of the trade, who has been unfortunate enough to spend his money in obtaining a patent for the same purpose. I hope both parties will excuse my informing them, that rather more than thirty years ago, that intelligent and scientific iron master, William Reynolds, of the Ketley Iron Works, in Shropshire, made great use of the same material, for the same purpose, and, as I then understood, under the protection of a patent.

I am, Sir, yours, &c.,

Hoyland Hall, near Barnsley, Nov. 23.

HENRY HARTOP.

PATENT ROTATIVE DISC ENGINE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—If your correspondent, "C. C.," wishes for information on the subject of the rotary steam-engine, to which he refers in your last Number of the Mining Journal, he can obtain such by addressing "The Disc Engine Company, Berkeley-street, Broad-street, Birmingham," at whose works the manufacture of the engines is carried on.

Birmingham, Nov. 28.

I am, Sir, yours, &c.,

D. D.

[For the information of our readers generally, we make the following extracts from the prospectus issued during the formation of the company, which states that the rotative disc engine provides all the power derived from the reciprocating engine now in use; and is equally applicable to all the purposes for which steam-engines are now employed, whether for mining operations, for manufactures, for railroads, or for navigation:—

"As regards stationary engines for mines or manufactures.—It is only necessary to state that the number of parts is reduced to less than one-sixth of those required for a reciprocating engine, and that the bulk and weight are reduced in a still greater proportion. There must be a consequent reduction in the first cost of the engine itself, and a saving of the large expenditure now required for foundations and erections, but what is still more important, the simplicity of the machine renders a derangement of its parts almost impossible, and the attendance of a skilful mechanic or engineer no longer requisite.

"As regards locomotive power on land.—In all the engines now employed for this purpose, the first motion is reciprocating, and it was only by the application of the talent of a Stephenson, aided by the greatest perseverance, that any machinery, producing the speed required on our railways, could be made to sustain the shocks occasioned by the requisite change of the reciprocating into a rotative motion. Although this has at length been accomplished, yet the change of motion and consequent shocks are the occasion of great and constant expense, and of rapid deterioration to the engine, and will prevent the attainment of higher speeds. This great defect is completely remedied by the application of the rotative disc engine; for the motion first generated being rotative, no change of action is required, and the power is applied immediately, and directly to effect its purposes, by machinery of the most simple construction.

"As regards engines for steam navigation.—The advantages of the rotative disc engine are of the greatest importance. Not only are all the benefits which result from the use of this engine upon railroads realised in this application, but they attain even a higher character. As an exemplification of this, it is only necessary to refer to the immense risk of life and property which attends any derangement of the complicated engines now in use for propelling steam-vessels, to the great security which would attend the use of an engine so much more simple in its construction. There is, however, another advantage of high importance in this department, which does not apply to the former, namely, the great reduction in bulk and weight. In a first class steamer, the engines alone weigh upwards of 300 tons, whilst the weight of engines of equal power constructed on this principle would not exceed 50 tons, and thus an available tonnage, to the extent of 250 tons, will be added to the capability of the vessel.

"In reference to cost of construction.—The rotative disc engine has an advantage over all other engines, which, after a comparison, cannot fail to secure for it a universal preference. Annexed to the prospectus is a copy of the report of Francis Wishaw, Esq., C.E., on the engine. Mr. Wishaw having been requested to examine and report on the principle of construction of the rotative disc engine, and to institute a comparison between it and those of the reciprocating kind, devoted a week to the purpose, and examined six different engines, the whole of which were represented, by the parties at whose works they are in use, to have performed their duties most satisfactorily. One of these engines (Mr. Wishaw observes) has been working for fifteen months, and has only required during this period the expenditure of three shillings for repairs. Mr. Wishaw continues.—The advantages to be derived from a rotative engine of simple construction, yet producing a mechanical effect equal to one of the reciprocating principle, at much less original cost, and with less expenditure of fuel, must be obvious to every one. Such a machine has long been a desideratum amongst engineers. The attempts which have hitherto been made to accomplish this desirable object, so far as my knowledge extends, have failed, either from the motion of the various parts of the machine being such as to produce so great an amount of friction, and, consequently, of rapid destruction, or from the engines requiring a greater supply of steam to effect a given amount of work. In my examination, therefore, of this invention, I have particularly directed my attention to these two important points. As regards the first, I find the moving parts of this engine are so few in number, and their motion so uniform and regular, that the amount of friction must be very materially reduced; the wear, therefore, of these moving parts, and their liability to derangement, will be reduced in a proportionate degree. This opinion is fully borne out by the examination I have made of several engines, which have been in operation for a considerable time; some of these were taken to pieces in my presence, for the purpose of ascertaining the wear of the moving parts, the amount of which appeared so small as to be inappreciable. With respect to the second, viz., the quantity of steam required to perform a certain amount of work, I have made several trials with an engine of this construction at the works of the British Alkali Company, near Bromsgrove, which is applied to a great variety of work; but as a considerable portion of the duty performed consists of pumping, I was thus enabled to make such a comparison between the different portions of the work as to obtain an accurate indication of the whole duty performed.

"The result of these trials is, that the work done by this twenty-four inch disc engine, working with steam at 20 lbs. pressure, is equal to twenty horses' power, after making ample allowance for friction; and the consumption of fuel (common Staffordshire coal) is equal to two hundred weight per hour, or rather more than eleven pounds per horse per hour. This engine is worked by high-pressure steam, which, after performing its duty, passes into the atmosphere; and, during the experimental trials, I found, by the mercurial steam gauge, that the average pressure was equal to 20 lbs. on the inch; but in order to work this engine to the greatest advantage, the pressure should be considerably increased. I am informed that this engine was first upwards of twelve months ago, at which time the patentees had not acquired the experience in its construction which they now possess. Taking all these circumstances into consideration, viz., the want of experience, the disadvantages pressure at which the engine is working, the inferior quality of coal

and, and the amount required per horse power, and, moreover, that this amount does not exceed the quantity consumed for a high-pressure reciprocating engine of equal power, I am of opinion that relative disc engines, constructed with all the advantages necessarily to be obtained by experience, will be found to be decidedly economical as regards the consumption of fuel. This engine, which I find to be equal to twenty horse power, with steam at 20 lbs., would, with steam at 45 lbs., be equal to thirty horse power. It occupies a space equal to four feet square by seven feet high, and its whole weight, including the frame, is 41 cwt. 3 qrs. 16 lbs., but as the frame of this engine is too light, an additional weight will be necessary for giving steadiness to the machine, which would probably increase the weight to 2½ tons; whilst, I am informed, that the weight of a high-pressure reciprocating engine of equal power would not be less than twenty tons. The foundation of this engine consists of brick-works occupying four feet square by five feet deep."

ON THE CONSTRUCTION OR FORM OF A BOILER FOR GENERATING STEAM.

TO THE EDITOR OF THE EDINBURGH WEEKLY CHRONICLE.

SIR,—As you noticed some weeks ago, under the head of "Steam-power," some improvements in generating steam, saving fuel, and other objects for which patents have been obtained, a few further particulars may be acceptable to many of your readers. From a late publication on steam-boilers, by Josias Parker, Esq., C.E., it appears that the construction of form of a boiler for generating steam, is of the greatest importance, as it is to the boiler we must look for safety, power, durability, and economy of fuel. In a letter addressed to the President of the Institution of Civil Engineers, by Mr. Ham, C.E., of Norwich, he states, "I am moreover convinced, that were slower combustion practised, fewer explosions, and a more timely of the present destruction of boilers would result, independently of its effecting a considerable saving in fuel, which would more amply repay for the capital invested in extra boiler room." Mr. Ham has been alluding to non-condensing engines, and he is undoubtedly correct, that the intense heat employed under the boiler, by large fires, is subversive of the intention, and that when the boiler is highly heated, the water is actually repelled from the surface of the plates, by an atmosphere of caloric, from its not being able to absorb it with sufficient rapidity.

I shall now state how far I have obtained these desirable objects:—I adopt a round boiler, about two feet diameter, and any required length; this form gives a strength that will sustain, with three-eighths plates, upwards of 800 lb. pressure, per square inch; but the great desideratum, surface, is wanting; this I have gained by forming into a spiral from 500 to 1000 feet, or more (according to the size of the engine), of available iron pipe, of an inch diameter, more or less, as required; this spiral represents a still-worm of from twelve to fifteen inches diameter; it is placed in the flue leading from the fire, and through which the heated air must pass in its way to the chimney; one end of the spiral is connected with the boiler under which the fire is placed, the other end is attached to the pump for supplying the water. I then expose the whole surface of the spiral in the flue, to the action of the heat passing through and around it, while the water is circulating in its passage to the boiler, the heated air passes into the chimney, where the coldest of the water enters the spiral, and before the water enters the boiler, it is ready for converting instantly into steam. Besides the objects stated by Mr. Ham, I may add, that this arrangement gives strength, durability, and economy, with more security from steam-power than has yet been obtained, and it is hoped may restore that confidence so necessary, particularly in steam-vessels and locomotive engines.

I am Sir, yours, &c.,

JOHN RUTHERN.

Nov. 14.

THE RIVAL LINES OF RAILWAY.

(From the Carlisle Journal.)

MR. LARMER, engineer, of this city, has just published a small pamphlet descriptive of the rival lines of railway between Lancaster and Carlisle. From this we purpose making such extracts as will place the matter in a clear point of view before our readers.

The man of the west have been at considerable pains to cry down the Inland line, as impracticable; and to stir up the great difficulties which beset the Morecambe Bay line. That there are difficulties on both lines it would be folly to deny; but they are not greater by the Inland line than by the Coast line—we say not nearly so great; whilst in favour of the Inland line there is this decided advantage—that it is thirty miles shorter. Now, allowing only 10,000l. a mile for the formation of the railway, here is an outlay of 300,000l.; there is the annual interest upon that; and there is for ever the annual expense of wear and tear upon thirty miles—and those who know anything of railways will find this a most serious item. Besides, there is the additional cost upon the transit of goods and passengers along the thirty miles. Is that item not worth consideration?

We are certainly most anxious to have a railway from Lancaster to Carlisle, and thence to Glasgow. So far as Carlisle itself is concerned, it is of little importance whether it is by the Inland line or by the Coast line. It is of consequence, however, that support should be given to that which is most likely to meet general public approval. Whichever line may be adopted, the money must be obtained from a distance; it would be impossible to raise such a sum as will be required in the locality. Will any money man, when he comes to examine the two lines, to measure the length of each, and to examine the difficulties of both, with an eye only to the safety of the investment he contemplates, hesitate for one moment, as to which he ought to give his support to? It will require no figures of rhetoric, but only a few figures of arithmetic to show him the difference between traveling sixty-four miles and ninety-four miles to reach the same point, to settle the question.

We may add here that Mr. Locke has examined the plan and sections of Mr. Larmer's line, and highly approves of them; and we believe they will be laid before the Government engineers stamped with his strong recommendation.

The following is the concluding extract from Mr. Larmer's pamphlet:—"With regard to the traffic on the two lines I think the public will form a still more favourable opinion of the Inland line, when I lay before them some facts relative to the counties of Cumberland and Westmorland. The south-east of Cumberland and the central portion of Westmorland are rich in minerals, particularly lead and copper ore; but either from its inability to transport these products, or to obtain good coal at a reasonable rate, the country is checked in its growth, and in many parts where the Inland line would pass through, the inhabitants are now obliged to travel over a distance of sixty miles before they can obtain fuel; but as it is brought from Carlisle, this line would set aside the difficulty, and would be the means of opening a rich and extensive mining district, containing lead, copper, black and fossil marbles, and slates in abundance. There are also large quantities of oak timber now allowed to waste on the ground for the want of cheap and easy transport."

"These objects of commerce would be the means of making both Carlisle and Lancaster places of great export. Carlisle may rise to great importance by the facilities which the cheapness of coal give it for the establishment of manufacturing on an extensive scale. By connecting it with the mineral districts, no one, I am certain, can have any idea, at the present time, of the great benefits likely to be reaped."

"But what are the benefits likely to result from the Coast line? I think it can be merely considered as a portion of a great line between London and Glasgow, without any means of producing those local benefits to an extensive mining district, which is in a manner shut out from the rest of the world by the want of a better means of communication. The income to arise from it would almost solely depend upon passengers, as it would never be able to compete with existing vessels in the carriage of minerals or heavy goods, where time is not so much an object as cheapness; but in the other line it is as much required for such an object; as for the conveyance of passengers; and would, therefore, always be able to command a much greater traffic by passing through the interior of a country having at one point fifty miles to the westward, and seventy to the eastward, than one running parallel with the sea coast."

(From the Whitehaven Herald.)

The Inland line passes through part of the north of Lancashire, through the middle of Westmorland, and through part of Cumberland; these, however, are very thinly populated countries, there being no towns of any consequence in the line of the railway except Kirkby Lonsdale, Sedburgh, and Penrith; nor any mines or minerals of any moment but the lead mines of Aulton Moor and Thos Fell, and the slate quarries in some of the hilly districts. In the Vale of the Lancs, and in the neighbourhood of Penrith, and from that town to Carlisle, the population is more considerable, but nearly altogether agricultural.

The West Coast line passes through the northern parts of Lancashire, over Morecambe Bay and the Duddon estuary, and will thereby reclaim from the sea, by means of the railway embankment, about 52,000 acres of land; proved by many former enclosures made at different times in the bay, and by experiments tried on the sea sand at Cark, to be of a very fertile kind, which reclaimed land, when valued at the moderate sum of 35l. per acre, amounts to 1,820,000l., and will, therefore, not only repay the whole expense of the line in the Morecambe and Duddon estuaries, but nearly the entire cost of the railway from Lancaster to Maryport. This line, leaving Lancashire and the rich agricultural district of Furness, abounding in iron ore and slate, enters and passes along the whole west coast of Cumberland, through or near Ulverston, Rostly, Ravenglass, Egremont, Whitehaven, Harrington, Workington, Cockermouth, Maryport, as a Wigan, to Carlisle—almost the only populous part of Cumberland—rich in agriculture, abounding in mines of coal, iron, and slate, and of very considerable mercantile importance—having many considerable rivers and streams descending, from the range of mountains stretching along the coast, in rapid streams from high elevations to the

Irish Sea, at present running to waste, but capable of being made available as an immense manufacturing power. Besides which, by the enclosure of Morecambe Bay and the Duddon estuary, and the straightening and thereby deepening of the river courses, the drainage of all the present low flat lands will be incalculably improved, whilst all the present shallow and inconvenient sea-ports in every part of these estuaries will have a far greater depth of water, and be navigable at nearly every period of the tide. Such are precisely the benefits which have arisen (mark this) on excluding the sea from Sutton Wash, an estuary very similar to, but larger than Ulverston Sands, and the straightening and deepening of the river Nene and carrying it in one uniform course; for before these works in Sutton Wash were executed, vessels of sixty tons only could navigate the river Nene, whilst now vessels of 400 tons pass up the river in safety. Farther, as the water in the new channel of the Nene now ebbs, every day ten feet lower than it did in the old channel immediately opposite South Holland and North Level Sluices, which are the outlets for about 100,000 acres of fen lands, a perfectly natural drainage has been thereby afforded to this immense district, previously but ill drained by means of an expensive and complicated system of wind-mills and steam-engines. The trustees of the Welland Navigation, seeing the benefits derived from the works in Sutton Wash, are now contemplating the enclosure of Posidye Wash, and have already straightened the course of the river Welland, by means of fascine works, no less than about two and a half miles, with great advantage to the navigation and drainage of that wash also.

The whole distance to be travelled over by the inland line of railway from Lancaster to Carlisle is but sixty-six miles and fifty-seven chains, whilst the distance to be travelled over by the West Coast line, including the length of the Maryport and Carlisle Railway, is about ninety-five miles, and the shorter distance of twenty-eight miles would at first sight appear a great advantage in favour of the Inland line, but when it is considered that the summit level of the Inland line is 650 feet (to be surmounted both ways), whilst the summit level of the West Coast line is but ninety feet (and this trifling rise only met with on entering Lancaster from the north), it being well known now that every rise of twenty feet is equal to a loss of more than one mile in railway travelling, i. e. when the power of an engine on a level amounts to 150 lbs. on a rise of twenty feet per mile; it will at once be perceived that the gain by the shorter distance is entirely lost by the disadvantageous gradients; and although it is certain that gradients like these might be worked, still it is quite impossible to avoid the loss of power and speed, as above stated.

"OUR MONETARY SYSTEM."

The present deranged state of the money-market, and the consequent injury which trade and commerce are suffering, have directed public attention in a special manner to the subject of our currency.

It seems to be admitted on all hands, that a metallic currency is not adequate to the exigencies of an great a commercial country as Great Britain; and that a recurrence must be made in some shape or other to a paper circulation.

The only point on which a diversity of opinion exists, is as to the principles on which a paper currency ought to be established; at least from ten to twelve theories exist on the subject.

We have not space to enter into the various notions which prevail as to the principles on which a paper currency ought to be grounded. Neither is this necessary, as some of them carry the impress of absurdity and impracticability on their very face. One of the most feasible schemes, on the first blush of the matter—though even to it, with the limited consideration we have been able to bestow upon it, we are not prepared to commit ourselves—one, we say, of the most feasible plans which have been proposed for establishing a healthier and safer system of currency is that which was originally put forward by Mr. T. Joplin in 1823, and which that gentleman has repeatedly brought before the public since that period. In a very able and intelligent pamphlet, entitled "Our Monetary System," which he has published within the last few days, Mr. Joplin again brings under the consideration of the community the same system, with some slight modifications. We will allow Mr. Joplin, who, we ought to mention, is the author of various talented treatises and pamphlets on similar subjects, to develop his views in his own words. He proposes:—

"1. That on a certain day all the bank notes in the United Kingdom, whether issued by private or joint-stock banks, including those of the Banks of England and Ireland, shall become the current money of the realm, the same as the metallic currency."

"2. That parties holding them may receive cash for them at the Bank of England, or may obtain, from any of the banks by which they are issued, a draft, to be termed a bullion bill, upon the Bank of England for the amount of them; for which draft, or bill, he may either receive gold or Bank of England notes, at his option; or he may present it to any other bank of issue in the kingdom, and receive their notes for it."

"3. That notes received in purchase of a bullion bill shall be cancelled; and that such bill, if not paid in coin or bullion by the Bank of England, shall be paid by a fresh issue of notes, either by the Bank of England, or by any other bank of issue in England, Ireland, or Scotland, to which it may be presented."

"4. That the Bank of England shall purchase all bullion presented to it by a fresh issue of notes, or by a receipt, which shall be an order upon any other bank in England, Ireland, or Scotland, to which it shall be presented for payment, to be paid by a fresh issue of notes."

"5. That such bank shall become indebted to the Government for the amount of its circulation, and such further amount as may be necessary for its till."

"6. That a Board of Commissioners shall be established in London, to settle and conduct the details of the plan, on such conditions, and with such powers, as Parliament shall determine."

Mr. Joplin then proceeds to make some explanatory observations, and to point out the results which he conceives would flow from the adoption of his plan:—

"The general proposition (he says) embraced in this plan is, that the power of issuing notes at pleasure is to be taken from the banks by which the currency is at present issued, and that hereafter there shall be no alteration in the amount of the circulation, except such as would be produced by an importation and exportation of the precious metals, if the currency were metallic; and this principle being adopted, the great object will be obtained. I have proposed the arrangements with respect to bullion bills, &c., with a view to simplify the practical application of the principle; but any other arrangement may be equally well adopted that shall appear more convenient. The advantage of making the existing issuers of the currency the future agents in the management of it, upon terms advantageous to themselves, is obvious. It will prevent anything like derangement in carrying the plan into effect; the public will know no other difference, than that the bank notes they may hold will possess a higher degree of credit; while, from the moment the plan is adopted, all further derangements in the money market, from the operation of the exchanges, will be at an end; as the influx and reflux of the precious metals will take place totally independent of, and unconnected with it."

As we observed before, we have not bestowed sufficient attention on the subject to be able to pronounce any decided opinion on the merits of Mr. Joplin's plan. This, however, we can say with confidence, that it is one which, not less from its seeming feasibility than from the author's reputation as a writer on such subjects, is entitled to the serious consideration of the government and the legislature. What strikes us as the greatest objection to it is the complicated machinery by which Mr. Joplin proposes to carry his views into effect. To make all the banks throughout the country banks of issue, would, we apprehend, be attended with great inconvenience. We doubt exceedingly whether this part of Mr. Joplin's plan would work with the regularity and produce the beneficial results which he anticipates. Why, above all things, include the private banks among those on whom he would confer the privilege of issuing notes, when it is clear that in a very short time they will be all swallowed up by the joint-stock banks? Private banks are obviously unsuited to the spirit of the age and the progress of commerce in this country. Would it not, moreover, be a much more preferable plan to have one great government establishment, to be called a National Bank, which alone should have the power of issuing notes, the issues being, of course, made under proper regulations? This, it appears to us, would greatly simplify the thing, and insure a far greater regularity in our monetary system than could be effected by any other plan.

Mr. Joplin does not expressly state whether his system of an improved currency includes a recurrence to a small note circulation. We presume it does; for a gentleman of his intelligence on the subject of our monetary system must long before now have perceived that without the re-adoption of one pound notes, no plan for improving our currency can be effectual.

Mr. Joplin's pamphlet, which is published by Mr. Ridgway, appears at a very seasonable moment. It cannot fail to attract attention, and it will certainly well reward the most careful consideration which can be bestowed upon it.—*Morning Advertiser.*

NOTICE OF A DEFECT IN THE CONSTRUCTION OF THE DAVY LAMP.

We copy the following letter from the *Mechanics' Magazine*, some observations on which will be found in another column:—

SIR,—Allow me through the medium of your widely-circulated Journal to call the attention of those interested in the Davy Lamp, to a defect in its construction which materially deducts from its safety, and I have too much reason to fear has been the unsuspected cause of many of those heart-rending explosions which rarely leave a survivor behind to explain their sad and mysterious origin. The defect I would point out arises from the very loose and insecure method by which the wire-gauge cylinder is attached to the brass ring which forms the screw whereby it is united to the lower part of the lamp. In forming the wire-gauge cage a low longitudinal overlapping seam is made down the whole length of the cylinder, the fitting of these parts into each other is seldom attended to by those having the care of the lamp, and even when fitted the junction is so incomplete as to allow of the internal flame passing readily under the lower edges of the cylinder and thence escaping between the outside of the cage and the ring which confines it. My attention was first called to this fact by a circumstance which occurred a short time since at a colliery in this neighbourhood. One of the workmen in descending the engine-shaft with a Davy Lamp, came in contact with an accumulation of gas, which exploded at the lamp and burned the man severely. This occurrence naturally excited much surprise and suspicion amongst the workmen, who had hitherto placed implicit confidence in the safety of the lamp, and I was immediately informed of the fact by one of the proprietors who was most anxious to ascertain the cause of such an unexpected and untoward event. On a careful examination of the lamp I discovered the accident to have undoubtedly arisen from the cause I have alluded to, viz.—the imperfect connection of the wire-gauge cylinder with the lower part of the lamp which had allowed the internal explosion to pass under the edges of the cage, and thus to communicate with the inflammable mixture outside. Subsequently to this I have attended a lecture given to the members of a Mechanics' Institution in this neighbourhood by the well known chemical lecturer, Mr. Murray, and having accidentally observed in the course of the lecture, that an explosion took place during the experiments with the Davy Lamp, I was led to point out to Mr. Murray, at the close of the lecture, the defective method of its construction, and on examining the lamp used by Mr. Murray on this occasion, it evidently appeared that the explosion during the lecture had arisen from that cause here referred to, and which Mr. Murray took the precaution to guard against in his future experiments. My principal object in troubling you with this communication is, that the attention of lamp manufacturers and others may be called to this important source of insecurity, and that some method may thus be adopted to obviate this great evil. I would just suggest, that could the cylinder be made without a seam, it would, in part meet the difficulty of bringing the outer surface of the gauge and the inner face of the connecting screw into closer contact, and if the lower edges were turned further under, and the screw brought dead down upon their flat surface, a close joint might possibly thus be obtained. The great utility and importance of the Davy Lamp, I most readily admit; I am consequently desirous that the principles on which it is founded, and which of late it has been too much the fashion to assail, should not suffer from those errors in construction which I have here pointed out.

SPECIFICATIONS OF RECENT PATENTS.

(From the "Inventors' Advocate.")

Edward Oliver Masby, civil engineer, Swansea, Glamorgan, new method of manufacturing gas for the general purposes of illumination: Nov. 8th.—By this invention, steam is introduced into the retort containing anthracite or stone coal, culm, charcoal, &c.

The retort or closed vessel, about eight inches diameter, is placed vertically, and projects in front with an opening, for the purpose of taking away the coke from the lower end; the upper end where the coal, &c., is introduced, curves the contrary direction to receive the funnel or hopper; immediately under the retort is a box or receptacle with a flange above, held down by a tripod; at the bottom of this box is an emission pipe, reaching down the centre of the retort; the furnace is placed round the retort, which is brought to red heat, when the small coil, added to one part slacked lime and nine silicious sand, with one clay to prevent caking, is put into the retort red heat, and the lid is fastened or held down by a tripod; the steam is now introduced from the boiler through a pipe at the lower end of the retort, and the generated gas passes into the emission pipe through the perforated fine holes, when it is carried into the box or receptacle to the hydraulic cylinder, and then to the gasometer.

The steam-pipe is conducted behind the furnace, the heat of which increases the power of the steam; to this pipe is a cock or valve, to shut off the steam when not required; for should the carbonaceous matter produce but small quantities of hydrogen gas, the steam must not be so freely admitted; and, otherwise, should bituminous coal be used which generates tar, the application of steam is increased, also the heat round the retort; thus, by the co-operation of steam and heat, a large portion of gas is taken from the tar.

Joseph Mandslay and Joshua Field, engineers, Lambeth, Surrey, improvements in the construction of marine steam-engines, which are particularly applicable to steam-engines of the larger class: Nov. 7th.—The first feature of these improvements consists in adapting two steam cylinders to one engine in such a way that shall act simultaneously upon both pistons, in order that they may be made to rise or fall together, the piston-rod of each being attached to one horizontal cross-head, thereby the combined action of both pistons being applied to one crank of the paddle-wheel. Between the two cylinders four vertical rods are keyed to the cross-head, and are connected at bottom to a slider that moves up and down the guide-rod on the outer surface of the cylinders; to this slider, one end of a connecting rod is attached, and the other end to the crank of the propelling shaft; by this arrangement will be perceived the simultaneous ascent and descent of the two pistons in their working cylinders, at the same time working the lever to which the air-pump is attached. The mode of adapting the steam valve to combined cylinders: the steam is admitted to and withdrawn from these cylinders by one slide-valve common to both; there is also a narrow passage always open, by which the steam is allowed to pass from one cylinder to the other for the purpose of keeping an equal pressure at all times in both cylinders.

Second feature of improvement applies more particularly to engines for river navigation, and consists in the adaptation of a piston with two rods working in a steam cylinder of large area, both piston-rods being connected to one cross-head above, which gives motion to the crank below it, by a single connecting rod. The two perpendicular rods attached to the one piston, work through stuffing-boxes on the cylinder lid; these rods are keyed at top to the cross-head, which slide up and down the guide-rods, fixed on cast iron supports; the connecting-rod is attached above to the cross-head, and below to the crank on the paddle-wheel shaft.

Third improvement consists in a method of adjusting the expansion-valves of combined engines, by which the period for shutting off the steam at any period of the stroke, may be regulated in both engines at once by a single movement, and whilst the engines are working. A tube or socket slides horizontally upon the shaft, and is prevented from turning by a rib on the shaft taking into a long groove in the socket; this tube or socket has two small cams fixed to it, or cast upon it, and between these cams are rings or flanges, which cause the tube or socket to pass to the right or left, when influenced by the wheel on the spindle working at right angles, and under the control of the captain or engineer. The levers, passing over the small cams are connected by rods to the expansion-valves; thus, according to the position of these cams, the levers must rise and fall for the purpose of admitting, as required, more or less steam into the cylinders.

Fourth improvement is the peculiar construction of the main-beams of the framing that carry the plunger blocks of the main crank shaft to which the paddle-wheels are attached; these beams are formed as hollow trunks by the combination of wrought-iron plates attached to bars of angle iron in the same way as ordinary boilers are made, by which means may be constructed beams of the largest dimensions with unlimited strength and of comparatively small weight.

SPECIFICATION OF A PATENT FOR A PROCESS FOR ALLOYING METALS BY CEMENTATION; GRANTED TO M. SOREL, OF PARIS.

To all persons to whom these presents shall come M. Sorel, of the kingdom of France, gentleman, sends greeting. He knows that I, the said Sorel, have invented, constructed, made and applied to use, a new and useful process for alloying metals by cementation; applicable particularly to the preservation of copper, iron, and other metals, and also operating a change in their outward appearance, and giving them some gloss; which process is specified in the words following, viz.:

The said process consists in alloying the surface, or even the mass, of copper either with zinc, tin, lead, or other metal more fusible than copper, and capable of being alloyed with the same. These various metals may either be employed singly or in combination, but I have obtained the best results, in every respect, from the use of zinc alone. By an analogous process, I also alloy iron and other metals, as herein fully described and made known.

The mode of cementing zinc with copper may also be employed for the cementation of other metals; I begin by scouring the metal I wish to alloy, or cement; I surround it afterwards with pulverised charcoal and zinc. The zinc is prepared for that purpose by fusing an alloy between the said metal and iron, which alloy may be easily reduced into powder. Zinc minutely divided by other means may also be employed.

The copper, thus surrounded, or covered, is placed in a furnace, where it is to be raised to a red heat, and so some temperature must be kept up during a longer or shorter period of time, according to the dimensions of the

pieces of copper operated upon, and the depth to which it is desired to operate the cementation. It is, however, proper that the operation should not last too long, as, on the copper, there might then be formed a coating of brass, which would be liable to corrode, and to produce verdigris; which defect may be obviated in two ways—1st, by stopping the operation before the alloying between the copper and the zinc be completely effected; and 2d, by sifting pulverised zinc over the substances which cover the copper, a few minutes before it is drawn from the fire.

In the process of cementation, just described, instead of the pulverised zinc, thin sheets of zinc may be substituted, or even laps calaminaris. When it is not required that the cementation should penetrate deeply into the copper, this metal may be previously coated with zinc, according to the usual process of tinning, and then submitted to the cementing process as above described.

This process of cementation is applicable to all metals in the rough or the finished state, such as copper, brass, melchior, or German silver, and is of much importance in metallurgy. Among thousands of applications, may be mentioned the preservation of the copper sheathing of ships, the preservation of medals and other precious articles of bronze, the cleanliness, and consequently the salubrity, of culinary utensils.

It is worthy of remark that zinc, which by itself is so easily corroded by acids, becomes quite proof against sulphuric acid in the cold state, let it be ever so concentrated, provided the cementation of zinc and copper be stopped at the proper point to avoid the formation of brass; while, on the other hand, zinc alloyed by fusion with one-half, or one-third, of its weight of copper is dissolved by sulphuric acid as rapidly as if it were pure and unalloyed.

The application to iron of the process of alloying by means of cementation is to be next explained; this process preserves iron from rust, and, moreover, gives to wrought, or to cast-iron, the appearance of gold, or of silver.

With an alloy of copper and zinc in different proportions, and by prolonging the operation, more or less, a gold or silver colour is given to the iron operated upon. These colours are brilliant and lasting, and do not produce verdigris, and the metal resists the action of sulphuric acid more or less diluted with water. The process is as follows, and consists of two operations, which though analogous in their effects, are yet different from one another:

Firstly, the iron must be covered by immersion in the fused metal which is intended to be used as a coating; secondly, the iron must be alloyed by means of cementation, with the metal which has been thus made to cover it. This last operation, gives to the coated metal new properties, and renders its surface more smooth.

To coat iron with an alloy of copper and zinc, I melt about two parts of copper with three parts of zinc, and I dip in this alloy, while in a fused state, and covered with borax, or other suitable flux, the pieces of iron I wish to prepare. These pieces must be well secured, or previously coated with zinc. If the pieces be very massive, they must be heated before being dipped in the fused metal. By way of lessening the quantity of borax necessary to the process, a saturated solution of this flux may be made, and brought to the boiling point, and the pieces are then immersed in this solution, before being introduced into the fused metal. When extracted from the melted metal, the pieces of iron will not have yet assumed the colour of copper, and their surface will be rough, but a second operation imparts to them the proper colour, and removes the asperities.

The second operation is as follows:—The pieces of iron which have been submitted to the first operation, must be covered with powdered charcoal, and exposed to a red heat, for a longer or shorter space of time, according to the colour and the result to be obtained. The iron is better preserved from rust when the operation is rapidly effected, but in that case the colour is not so good.

The pieces of iron must be drawn from the furnace along with the charcoal which covers them, and in that state immersed in water, and allowed to cool.

The second operation may be effected in a reverberatory furnace.

The same process may be modified so as to dispense with the previous coating of zinc given to the iron; to effect this, an alloy of zinc and copper is made with the same proportions of each metal, indicated for the first process. When cool, this alloy must be reduced to powder in a mortar, and a certain quantity of borax must be added. The pieces of iron to be operated upon, must be secured, and covered with a greasy, or viscous substance, or merely wetted with water; they are next strewed with the powdered alloy and borax, and finally imbedded in powdered charcoal in the same manner as in the second part of the first process; they must be heated long enough to allow the excess of zinc to evaporate. It is easy to ascertain that the operation is terminated when only a small quantity of vapour escapes from the mass. The pieces of iron are then drawn from the fire and thrown, while red hot, and still covered with charcoal, into water. After this immersion, the iron is completely coated with copper, the brilliancy of which may be increased by dipping it into nitric acid containing a little soap; it may then be burnished, polished, and even gilded, exactly as if it were massive copper.

I shall finally describe a second modification of the process for alloying iron with another metal by cementation; first, secure the iron perfectly, immerse it in a solution of sulphate of copper, and let it remain therein during a greater or less period of time, according to the thickness of the copper coating which it is desirable to obtain; the copper precipitates on the iron, and when the covering is sufficiently thick, the pieces operated upon must be taken out of the solution and covered with very fine clay, softened in water; over this are strewed borax and zinc, pulverised and mixed together; instead of strewing borax and zinc powder in this way, a paste may be made with clay, borax and zinc powder, and the pieces of iron be covered with the same.

The pieces of iron are next to be buried in powdered charcoal, and exposed, during a few minutes, to a white heat. They may then be withdrawn from the fire, and they will be found to be covered with a coating of the alloy, containing a greater or less proportion of zinc, according to the proportion contained in the powder employed, and the duration of the process.

What I claim as my invention, and desire to secure by letters patent, is the manner herein described of cementing copper, and other metals, or mixture of metals, with zinc, in the manner, with the limitations, and for the purpose, set forth. I also claim the manner of protecting iron, by the process, or processes, herein fully described and made known, together with such modifications of said process, or processes, as are substantially the same in their nature and effects.

GEOLOGY OF THE MOON.

(From the *Athenaeum*.)

Capt. Portlock, President of the Geological Society of Dublin, being of opinion that information as to the original condition of the surface of the earth might be obtained by an inquiry into the condition of some other planetary body, wrote to Dr. Robinson, of Armagh, on the subject; the following is the Doctor's interesting reply:—

Feb. 7, 1859. Observatory, Armagh.

MY DEAR SIR,—My general notion is, that you are quite right in referring to the moon as evidence of the absence of weathering. The sharpness of its rocks and peaks is quite surprising; for every angle and edge stick out with a ruggedness that is, perhaps, the thing which first strikes an observer with a sense of the wide difference between that globe and the earth. It alone would show that air and water are absent, had we no other evidence. But you are, I think, in error, when you infer from the great height of lunar mountains, the probable quantity of the wearing down which our earthly peaks have suffered. The moon has less attractive force than belongs to our planet, so that the same elevating force would do about twenty times as much work; and there is every reason to believe that the elevating forces were far more energetic. Indeed, I regard the appearance of the moon as strong presumption against Mr. Lyell's notion, that the energy of volcanic action is as powerful now as it was in the primeval epochs of our planet. No volcanic action is now at work in the moon; but we see that it was once raging with uncontrollable fury, and on the most prodigious scale. There it has actually worn itself out; here, I think, we may assume that it has merely expended most of its force. I may here tell you some of the matter which I see, or think I see, on the surface of our satellite. The mountains of earthy shape are some pretty high, the highest peak, of the said Apennines, being, according to the best authority, something under 17,000 feet above the plains from which it rises; but this is a rare instance, and very few reach 6000. They are of astonishing steepness. But the Ring mountains, or craters, are much stranger affairs. Take, for instance, Tycho, that bright spot in the south-east quarter, from which the rays seem to run. It is fifty miles in diameter, and 16,000 feet deep, surrounded by broad terraces within, and with a central mountain about 5000 feet high.



This is a type of the principal part of the lunar mountains; some are 300 miles diameter, and one nearly of this latter size, 22,000 feet deep. What a paroxysm it must have been that hollowed out this monstrous crater. Observe that all these craters are depressed below the lunar surface, the elevation of their walls above it being in general but half their depth below it; and the question is, what became of the immense quantity of materials that must have been blown out of them. Schrotter thought that the walls, if demolished, would fill the craters; but this (in Tycho, for instance) is certainly not always the case, and we do not recognise heaps of debris in the vicinity. But we do find a curious appearance sometimes—these rays to which I have

already alluded as diverging from particular centers. They are peculiarly bright, but not at all elevated above the lunar surface, and give the idea of a fluid which had run out in currents, and produced some chemical change in the soil over which it passed. As these rays are themselves bristled with craters, these latter must have been of subsequent formation. The long lines terminating in those dusky places, which we sometimes hear called seas, they were more probably the track of volcanic fluids, which, however, must have been quite different from our lava, and, perhaps, have played some part in the absorption of the lunar atmosphere, and the removal of its seas. In general the large craters are far more brilliant than the other parts of the moon, and the comparative obscurity of the seas arises from the scarcity of volcanic action there. On earth, I believe, our present volcanic products are but little reflective; it is otherwise there; but it may be remarked, that the small craters, which subsequently broke out on the greater and older ones, are much less bright, as if the expiring action had been more analogous to that of our own planet. But this at least is clear, that since the invention of the telescope the moon has been undisturbed. But I must stop by assuring you that I am yours sincerely,

T. R. ROBINSON.

PURCHASES OF BLACK TIN AT REDRUTH.

NOVEMBER 12.

Purchaser.	Mines.	Tons.	Total.	Price.	Black Percent.	Total amount.
TRELOWY & CHARLESTOWN U. M.	17	44	15	0	780	15
HOUSES.	118	32	10	0	670	15
Wheal Kitty	12	40	2	0	50	2
Tinctor	13	42	17	0	357	7
Polbren	104	45	0	0	450	0
Polbren	14	43	7	0	63	11
St. Enodur Consols	64	44	7	0	396	0
Polbren	44	41	2	0	155	1
Polbren	1	42	0	0	33	0
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Tinctor	13	42	17	0	35	

PRICES OF STOCKS.

ENGLISH PUBLIC FUNDS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
Bank Stock, 7 per Cent.	178 1/2	178 1/2	178 1/2	178 1/2	178 1/2
3 per Cent. Red. Ann.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
5 per Cent. Consols.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
3 per Cent. Red. Ann.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
New 3 1/2 per Cent. Ann.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
Long Ann.	100	100	100	100	100
India Stock, 10 per Cent.	251 1/2	251 1/2	251 1/2	251 1/2	251 1/2
South Sea Stock, 3 per Cent.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
Ditto Old Ann. 3 per Cent.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
Ditto New Ann. 3 per Cent.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
India Bonds, 1 per Cent.	100	100	100	100	100
Exchange Bids, 1000s. 6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2
Ditto	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2
Ditto	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2	6 1/2 1/2
3 per Cent. Cons. for Jan. 10	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
Bank Stock for Ac. Jan. 10	178 1/2	178 1/2	178 1/2	178 1/2	178 1/2
India Stock for Ac. Jan. 10	251 1/2	251 1/2	251 1/2	251 1/2	251 1/2

BANK OF ENGLAND—TRANSFER BOOKS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
3 per Cent. Consols.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
New 3 1/2 per Cent.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
3 per Cent. Cons.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
New 3 1/2 per Cent.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
Annuit. for terms of years	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
India Stock	251 1/2	251 1/2	251 1/2	251 1/2	251 1/2
South Sea Stock	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
New South Sea Annuit.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2
3 per Cent. Cons.	90 1/2	90 1/2	90 1/2	90 1/2	90 1/2

FOREIGN STOCKS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
Austrian, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Belgian, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, 1850, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Buenos Ayres, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Cuba, 6 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Chilian, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Colombian, 6 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, 1854, ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Danish, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Greek, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, 1850, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Mexican, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, deferred do.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, 1850, 6 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, def. do. 6 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Neapolitan, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Peruvian, 6 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Portuguese, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, New 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, 1857, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Russian, 1857, 5 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Spanish, 5 per Cent. Consols.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, passive	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, deferred	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Dutch, 2 1/2 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, 6 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto, New, 1857	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

FRENCH FUNDS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
3 per Cent. Ann.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
5 per Cent. Ann.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
4 1/2 per Cent. Ann.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Exchange	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Bank Shares	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

IRISH FUNDS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
Bank Stock	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Government Debentures 3 1/2 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto Stock	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto New	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto ditto, reduced 4 per Cent.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Consols.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
City Debentures	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Exchange Bids	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

AMERICAN FUNDS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
New York	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Pennsylvania	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Maryland	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ohio	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
South Carolina	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Tennessee	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Virginia	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

COURSE OF EXCHANGE.

Place.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
Amsterdam	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Bombay	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Calcutta	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Canton	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Hankow	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Harbin	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Hongkong	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
London	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Lyons	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Manila	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Peking	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Rangoon	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
San Francisco	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Shanghai	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Singapore	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Sourabaya	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Tientsin	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Yokohama	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

PRICES OF METALS.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
Copper, Brit.—Cable	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Cable	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Sheet	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Wire	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Cast	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Pig	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Refined	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Zinc	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Tin	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Lead	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Iron	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Steel	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Aluminum	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Nickel	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Cadmium	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Antimony	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Bismuth	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Mercury	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Silver	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Foreign—Gold	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Ditto	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

STEEL TABLE.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
High Water at London Bridge, for the week ending Dec. 6.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Morning	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Afternoon	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

PRICES OF SHARES.

BRITISH MINES.

Security.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
500 Anglesley	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
1,000 Arigna Iron & Coal Co.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
4,000 Blonze Bridge	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
8,000 Blonze Bridge	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
20,000 British Iron	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
1,000 Carrigan	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
100 Copper Bottom	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
2,000 Cornubian Lead Co.	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
6,000 Cornwall Great United	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
1,000 Cudra	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
2,000 Dartmoor Consols.	100 1/2	100 1/2	100 1/2	100 1/2	100